(Slip Opinion)

NOTICE: This opinion is subject to formal revision before publication in the Environmental Administrative Decisions (E.A.D.). Readers are requested to notify the Environmental Appeals Board, U.S. Environmental Protection Agency, Washington, D.C., 20460, of any typographical or other formal errors, in order that corrections may be made before publication.

**BEFORE THE ENVIRONMENTAL APPEALS BOARD**
**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY**
**WASHINGTON, D.C.**

| | | |
|---|---|---|
| In re: | ) | |
| General Motors Automotive – North America | ) | RCRA (3008) Appeal No. 06-02 |
| Docket No. RCRA-05-2004-0001 | ) | |

[Decided June 20, 2008]

***REMAND ORDER***

***Before Environmental Appeals Judges Edward E. Reich, Kathie A. Stein, and Anna L. Wolgast.***

**IN RE GENERAL MOTORS AUTOMOTIVE – NORTH AMERICA**

RCRA (3008) Appeal No. 06-02

***REMAND ORDER***

---

Decided June 20, 2008

---

Syllabus

On May 19, 2006, General Motors Corporation ("GM") appealed from an Initial Decision entered against it on April 14, 2006, by Administrative Law Judge ("ALJ") Barbara A. Gunning. In her Initial Decision, the ALJ determined that GM violated the Resource Conservation and Recovery Act ("RCRA"), 42 U.S.C. §§ 6901-6992k, and the statute's implementing regulations, by failing to comply with a variety of inspection, recordkeeping, equipment marking and monitoring, secondary containment, and related requirements regarding hazardous waste purportedly generated at three of its automobile assembly plants in the States of Michigan and Ohio. According to the ALJ, GM generates hazardous waste when it deploys organic solvents called "purge solvents" to remove paint from automated spray painting equipment that the company uses to prime, paint, and topcoat car and truck bodies in its assembly plant paint shops. Pursuant to RCRA section 3008(a)(3), 42 U.S.C. § 6928(a)(3), the ALJ assessed an administrative penalty of $568,116 against GM for these violations.

On appeal, GM contends that the ALJ erred on five primary grounds in analyzing the company's liability for violating the solid/hazardous waste provisions of RCRA subtitle C and the implementing regulations. First, GM claims that the ALJ erred in her interpretation of the RCRA regulations that define a "solid waste" as, among many other things, a "spent material" that has been used for "the purpose for which it was produced" and as a result of the use has become too contaminated to be used further for that purpose without reclamation. Second, GM contends that the ALJ erred in her interpretation of the statute by holding that purge solvent is "discarded" at the point it exits the spray paint applicators and therefore qualifies as a "waste" that must be managed in accordance with RCRA subtitle C. Third, GM argues that even if purge solvent were "spent" downstream of the paint applicators, it still is not regulated under subtitle C because it qualifies for two regulatory exemptions: (1) the "manufacturing process unit" exemption; and (2) the "totally enclosed treatment facility" exemption. Fourth, GM argues that EPA's regulatory interpretation of "solid waste" is inconsistent with prior Agency interpretations of the term and that the new interpretation has been improperly imposed on the regulated community by means of enforcement proceedings rather than properly promulgated through notice-and-comment rulemaking. Fifth and finally, GM contends that when EPA is enforcing the State of Michigan's laws, as it is in this case

with respect to two of the three facilities at issue, the Agency is bound by the State's determination that purge solvent in purge mixture is not a solid waste until it reaches the purge mixture storage tanks.

Held: The Environmental Appeals Board affirms some of the ALJ's rulings but concludes that the ALJ made several errors of law in her analysis of this legally and factually complex matter. The Board reverses the ALJ's finding of liability and remands this case to the ALJ for further proceedings consistent with this opinion, as follows:

(1) *The Regulatory Argument: When Is Purge Solvent "Spent"?* The Board holds that the ALJ committed clear error in certain aspects of her interpretation of the clause "the purpose for which [a material] was produced" in the definition of "spent material," found at 40 C.F.R. § 261.1(c)(1). Upon review of the regulatory text, regulatory history, and EPA interpretive guidance documents, the Board holds that the Agency intended that the "purpose" clause have a singular character, not a multiple character, and that the ALJ clearly erred in adopting a "predominant purpose" test for determining when a material is "spent."

The Board holds further that EPA intended a material's "purpose" to be construed as follows. First, under ordinary circumstances, the initial deployment or application of a batch of material will serve as the touchstone for determining "the purpose for which [that batch of material] was produced," and, at the end of the initial deployment or application, the material will be considered "spent" under the regulations. Second, in the 1985 preamble to the solid waste regulations, the Agency created the "continued use" policy, which acts as an exception (or "but for" test) to the ordinary "purpose"/"spent" analysis. If the conditions of the exception apply, the exception broadens "the purpose for which [a material] was produced" to include not just the initial deployment or application but also certain continued uses of the material.

The Board finds that this continued use exception is comprised of two primary conditions. Condition number one provides that the continued use of the material must be similar to or consistent with the initial deployment or application of the material. Condition number two provides that the continued use of the material must be a legitimate further use of the previously used material rather than an improper or disguised means of disposing of a waste material. The latter condition, "legitimacy," is evaluated by means of a three-part test EPA set forth in an applicability determination issued to Safety-Kleen Corporation in 1998. The test, grounded in the 1985 preamble, provides that a continuing use of a partially depleted material will be considered "legitimate" if it is: (1) effective; (2) necessary; and (3) not in excess of the quantity that would normally be required to achieve the task. The Board holds that a continued use deemed to be similar/consistent and legitimate broadens the "purpose for which [the material] was produced" to include that continued use until the use is concluded. The burdens of pleading and proving the existence

of a qualifying continued use rest upon the party attempting to invoke the exception.

As to this specific case, the Board holds that the "purpose for which GM's various purge solvents are produced" is to solubilize and suspend specific automotive paints/coatings in assembly plant paint manifolds and spray applicators. At the point purge solvent exits the spray applicators (or the mini-purge pots at one facility), and absent a qualifying continuing use, it becomes a material that "has been used and as a result of contamination can no longer serve the purpose for which it was produced without processing." The possible qualifying continuing uses at GM's assembly plants include: (1) moving purge mixture downstream from the paint manifolds and applicators all the way through the purge pots, piping, and equipment of the purge solvent recovery system; and (2) keeping purge mixture sufficiently fluid in the purge mixture storage tanks. Whether either of these two purported continuing uses appropriately falls within the scope of "the purpose for which [purge solvent] was produced" turns on whether they meet the similarity/consistency and legitimacy conditions for continued use.

With respect to the first purported continuing use, the Board's analysis incorporates an assumption that this alleged further use of purge solvent is sufficiently similar to or consistent with the solvent's initial deployment to fulfill the first condition of a continued use under EPA's continued use policy. Region 5 acknowledges that purge solvent in purge mixture retains its ability to solubilize and suspend paint solids in the downstream purge solvent recovery systems and does so at GM's three facilities. The Board notes, however, that nothing in its decision precludes the ALJ, on remand, from examining the question whether this purported further use of purge solvent is sufficiently similar to or consistent with the solvent's initial deployment as a painting equipment cleaner to qualify as a continued use under EPA's policy. As to the second condition (i.e., legitimacy) for establishing a continuing use, the Board has questions about the ALJ's findings that force alone is responsible for cleaning the downstream purge pots, equipment, and piping and properly transporting purge mixture to the storage tanks. The Board remands the questions of "effectiveness" and "necessity" to the ALJ for reconsideration of the evidence in the record, including witness testimony specifically highlighted in the Board's analysis, along with further fact-finding as warranted. The Board also remands the question of what "quantity" of purge solvent in purge mixture is needed to move waste paint solids downstream, which is not addressed in the existing record and thus will require new fact-finding by the ALJ. Upon completion of the factual record, the ALJ will be required to render a decision on the "legitimacy" of GM's alleged downstream continuing use.

With respect to the second purported continuing use, the Board's analysis also assumes that this further purported use is sufficiently similar to or consistent with the solvent's initial deployment as a painting equipment cleaner to fulfill

the first condition of a continued use under EPA's continued use policy. The Board notes, however, that nothing in its decision precludes the ALJ, on remand, from examining the question whether this purported further use of purge solvent is sufficiently similar to or consistent with the solvent's initial deployment as a painting equipment cleaner to qualify as a continued use under EPA's policy. As to the second condition for establishing a continuing use, the Board again has questions pertaining to the three legitimacy prongs for this "use" and finds that they are not sufficiently answered by the evidence presently in the record. The Board directs the ALJ to conduct new fact-finding on the effectiveness, necessity, and quantity of purge solvent "used" in the purge mixture storage tanks. The ALJ will then be obliged to employ the new facts to make a determination as to the legitimacy of this alleged continued use.

(2) *The Statutory Argument: When Is Purge Solvent "Discarded"?* The Board remands this issue to the ALJ for further consideration in light of the new facts collected for the continuing use analysis, as set forth above. The Board finds that a determination as to whether used purge solvent exiting the paint applicators is "discarded" – i.e., "disposed of," "abandoned," or "thrown away" – cannot be made, consistent with federal court precedent that interprets this statutory term, until the continuing use questions have been fully explored.

(3) *Exemptions*. The Board remands the "manufacturing process unit" exemption analysis to the ALJ for reconsideration in accordance with the existing record and any new facts that will be collected for the continuing use analysis. Furthermore, the Board affirms the ALJ's holding that the "totally enclosed treatment facility" exemption is not available to GM for its downstream purge solvent recovery systems or its purge mixture storage tanks.

(4) *Alleged Inconsistency in Agency Interpretation of "Spent Material."* The Board agrees with the ALJ that EPA was not obligated to engage in public notice-and-comment rulemaking prior to clarifying its interpretation of "spent material" in the context of automotive assembly plant uses of purge solvent. Once established in the 1997-1998 time frame, the Agency consistently hewed to the line that purge solvent in purge mixture is "spent" and thus a "waste" at the point it exits the paint applicators. The Board holds that the Agency's applicability determinations, which conveyed the new interpretation to the public, qualify as "interpretative rules" that are excepted from the rulemaking process under the Administrative Procedure Act.

(5) *State of Michigan Determination of Point of Generation of "Waste."* The Board affirms the ALJ's ruling that the State of Michigan's interpretation of RCRA – i.e., that the point of generation of a regulated "waste" occurs upon entrance of purge mixture into the purge mixture storage tanks – does not bar EPA from enforcing a contrary understanding within that State's boundaries.

***Before Environmental Appeals Judges Edward E. Reich, Kathie A. Stein, and Anna L. Wolgast.***

***Opinion of the Board by Judge Stein:***

On May 19, 2006, General Motors Corporation ("GM") appealed from an Initial Decision entered against it on April 14, 2006, by Administrative Law Judge ("ALJ") Barbara A. Gunning. In her Initial Decision, the ALJ determined that GM violated the Resource Conservation and Recovery Act ("RCRA"), 42 U.S.C. §§ 6901-6992k, and the statute's implementing regulations, by failing to comply with a variety of inspection, recordkeeping, equipment marking and monitoring, secondary containment, and related requirements regarding hazardous waste purportedly generated at three of its automobile assembly plants in the States of Michigan and Ohio. Pursuant to RCRA section 3008(a)(3), 42 U.S.C. § 6928(a)(3), the ALJ assessed an administrative penalty of $568,116 against GM for these violations.

On appeal, GM contends that the ALJ erred on a number of grounds in analyzing the company's liability for violating RCRA and the implementing regulations. GM does not challenge the ALJ's penalty analysis in any respect (except as is implicit in challenging liability). As set forth below, this case concerns the point, if any, at which the solvent material GM uses to clean automotive painting equipment becomes a solid waste and a hazardous waste and whether GM may avoid hazardous waste regulation by demonstrating that the cleaning material is not a solid waste or a hazardous waste but is in continuing use. For the reasons set forth below, we find that the ALJ made errors of law in her analysis of this legally and factually complex matter. Thus, we reverse the ALJ's finding of liability and remand this case to the ALJ for further proceedings consistent with this opinion.

## I. *BACKGROUND*

### A. *Statutory and Regulatory Background*

In the mid-1970s, the United States Congress took steps to address the "rising tide of scrap, discarded, and waste materials" that had begun to be created nationwide as a result of recent technological, economic, and societal developments, such as mass production of packaged consumer goods and growing demand for these goods prompted by increases in population size and living standards. RCRA § 1002(a), 42 U.S.C. § 6901(a). Congress observed that responsibility for the collection and disposal of waste materials had historically been vested, and should continue to vest, in state, regional, and local agencies rather than in federal agencies. However, Congress found that the problems associated with disposing of the ever-increasing volume of waste had so intensified that the matter had become "national in scope and in concern," warranting, in its view, immediate and sustained federal action by means of financial and technical assistance to state and local entities, as well as federal leadership in the development and application of new waste reduction and disposal methods. RCRA §§ 1002(a)(4), 1003(a), 42 U.S.C. §§ 6901(a)(4), 6902(a). Accordingly, in 1976, Congress enacted RCRA as an amendment to the existing Solid Waste Disposal Act of 1965, for the purpose of placing new emphasis on the management of waste materials in ways that would ensure the protection of human health and the environment, the minimization of waste generation, and the conservation of energy and natural resources through waste recycling and recovery practices. RCRA § 1003, 42 U.S.C. § 6902.

To achieve these goals, Congress established, among other things, two foundational programs in RCRA: (1) a solid waste program, in subtitle D of the statute; and (2) a hazardous waste program, in subtitle C. In so doing, Congress sketched out general definitions for the terms "solid waste" and "hazardous waste," as follows: "Solid waste" under RCRA denotes "any garbage, refuse, sludge * * * and other discarded material," including solids, liquids, or contained gases, that result from industrial, commercial, mining, or agricultural operations or

from community activities. RCRA § 1004(27), 42 U.S.C. § 6903(27). "Hazardous waste," for its part, consists of "a solid waste, or combination of solid wastes," that, "because of its quantity, concentration, or physical, chemical, or infectious characteristics," may cause or significantly contribute to an increase in mortality or serious illness or pose a substantial hazard to human health or the environment when improperly treated, stored, disposed of, or otherwise managed.[1] RCRA § 1004(5), 42 U.S.C. § 6903(5). After laying out these guideposts, Congress directed the U.S. Environmental Protection Agency ("EPA" or "Agency") to implement RCRA by promulgating regulations to establish, among other things, a comprehensive hazardous waste management system for use on a nationwide basis. *See* RCRA §§ 3001-3006, 42 U.S.C. §§ 6921-6926.

EPA first enacted implementing regulations for RCRA subtitle C in 1980 and later amended those regulations in 1985. *See generally* Hazardous Waste Management System: Identification and Listing of Hazardous Waste, 45 Fed. Reg. 33,084 (May 19, 1980) (codified as amended at 40 C.F.R. pt. 261); Hazardous Waste Management System; Definition of Solid Waste, 50 Fed. Reg. 614 (Jan. 4, 1985) (codified as amended at 40 C.F.R. pts. 260-261, 264-266). The 1985 regulations, as periodically amended, have been in effect since their promulgation and are still in effect today.[2] These regulations define a "hazardous waste" as a "solid waste" that is, among many other things, "ignitable," and a "solid waste" as "any discarded material," consistent with the statute. 40 C.F.R. §§ 261.2(a), .3(a), .20-.21. They then define the term

---

[1] As these definitions make clear, only a material that first qualifies as a "solid waste" under the statute can be considered to be a "hazardous waste." *See Am. Mining Cong. v. EPA*, 824 F.2d 1177, 1179 (D.C. Cir. 1987) ("[b]ecause 'hazardous waste' is defined as a subset of 'solid waste,' * * * the scope of EPA's [subtitle C] jurisdiction is limited to those materials that constitute 'solid waste'").

[2] On March 26, 2007, EPA proposed to issue a supplemental rule containing revisions to the regulatory definition of solid waste that would exclude certain hazardous secondary materials from RCRA subtitle C regulation. *See* Revisions to the Definition of Solid Waste, 72 Fed. Reg. 14,172 (Mar. 26, 2007); *see also* 72 Fed. Reg. 20,304 (Apr. 24, 2007) (extending comment period on supplemental proposed rule to June 25, 2007). At this writing, the Agency has not yet issued a final rule.

"discarded material" as any material that is, among other things, "recycled" or "accumulated, stored, or treated before recycling" if the material is "spent" and is, among other things, reclaimed or burned for energy recovery. *Id.* § 261.2(a)(2)(ii), (c) & tbl. 1. A "spent material" is "any material that has been used and as a result of contamination can no longer serve the purpose for which it was produced without processing." *Id.* § 261.1(c)(1).

If a material is a hazardous waste, all the applicable requirements of RCRA subtitle C come into play with respect to that material. These requirements include stringent standards governing the generation, transportation, treatment, storage, and disposal of hazardous waste and the permitting of hazardous waste facilities. *See generally* RCRA §§ 3001-3005, 42 U.S.C. §§ 6921-6925; 40 C.F.R. pts. 260-266, 268, 270-273. Of particular relevance in the instant matter are the so-called "subpart J," "subpart BB," and "subpart CC" regulatory standards of parts 264 and 265; these standards establish hazardous waste management criteria for owners and operators of tank systems, air emission criteria for equipment leaks, and air emission criteria for tanks and containers, respectively. *See* 40 C.F.R. §§ 264.190-.200 & 265.190-.202 (subparts J); *id.* §§ 264.1050-.1065 & 265.1050-.1064 (subparts BB); *id.* §§ 264.1080-.1090 & 265.1080-.1090 (subparts CC). Parties subject to these rules must regularly inspect, mark, monitor, and assess their tank systems and equipment, install secure containment systems to capture accidental releases, maintain records of spills, leaks, or emissions of hazardous constituents, maintain records of inspections and other monitoring activities, conduct timely repairs, and perform numerous related waste oversight tasks. Penalties for failure to comply with these rules include, among other things, civil penalties of $32,500 per day for each violation. *See* RCRA § 3008, 42 U.S.C. § 6928; 40 C.F.R. § 19.4 tbl. 1.[3]

---

[3] The statutory maximum penalties for RCRA violations have been increased in recent years from $25,000 to $27,500 to $32,500 per day for each violation in accordance with EPA regulations promulgated pursuant to the Federal Civil Penalties Inflation Adjustment Act of 1990, Pub. L. No. 101-410, 104 Stat. 890 (1990) (codified at 28 U.S.C. § 2461 note), as amended by the Debt Collection Improvement Act of 1996, (continued...)

Under RCRA section 3006, states may obtain EPA authorization to administer portions or all of RCRA subtitle C within their boundaries. The state requirements must be at least as stringent as the federal ones and must provide for adequate enforcement of the statute. RCRA § 3006(b), 42 U.S.C. § 6926(b). Once authorized by EPA, a state's hazardous waste regulations operate as requirements of RCRA subtitle C in lieu of the comparable federal requirements. The state regulations are enforceable by the state, as well as by EPA independent of the state, pursuant to RCRA § 3008(a), 42 U.S.C. § 6928(a).[4] In this case, during the relevant time period, both the States of Michigan and Ohio had EPA authorization for their base RCRA programs, which included the definitions of "solid waste" and "hazardous waste" and the standards applicable to generators and facilities that treat, store, or dispose of hazardous waste. *See* 40 C.F.R. §§ 272.1150 (Michigan), 272.1800 (Ohio). Michigan had authority to administer 40 C.F.R. parts 264-265, subparts J, BB, and CC within its borders, while Ohio had authority to administer subpart J but not subparts BB or CC.[5] Joint Stipulations of the Parties ¶¶ 7-9, at 2 (July 22, 2004) [hereinafter Joint Stips.]; *see* 40 C.F.R. §§ 272.1151 (Michigan), 272.1801 (Ohio).

---

[3](...continued)
Pub. L. No. 104-134, § 31001(s), 110 Stat. 1321, 1321-373 (1996). *See* 40 C.F.R. pt. 19 (EPA's inflation-adjusted maximum penalties); Civil Monetary Penalty Inflation Adjustment Rule, 69 Fed. Reg. 7121 (Feb. 13, 2004); 61 Fed. Reg. 69,360 (Dec. 31, 1996). These two penalty-related congressional acts direct EPA (and other federal agencies) to adjust maximum civil penalties on a periodic basis to reflect inflation. At the time the alleged violations in this case occurred, the applicable penalty was $27,500 per day per violation.

[4] Congress specified that EPA must notify an authorized state prior to issuing a compliance order or commencing a civil enforcement action in that state. RCRA § 3008(a)(2), 42 U.S.C. § 6928(a)(2).

[5] Notably, the parties have agreed that the pertinent state requirements are identical or materially identical to the EPA-issued rules. *See* GM's Brief in Support of Its Notice of Appeal at 17 n.5; Complainant's Response Brief, CBI Redacted, at 9-10 (citing Joint Stipulation of the Parties Regarding Michigan and Ohio Rules). Therefore, for convenience, and except as otherwise noted, this decision will cite only the federal statutory and regulatory provisions. Such citations are intended to reference the state counterpart laws and regulations in appropriate instances as well as the federal standards.

B. *Factual Background*

GM owns and operates twenty-three vehicle assembly facilities in the United States. 7 Tr. at 13 (Bates).[6] These facilities produce a diverse array of GM products, including sedans, sports utility vehicles, and light- and heavy-duty trucks of various kinds. Only three of GM's twenty-three assembly facilities are directly at issue in this litigation: (1) the Pontiac East Assembly Plant in Pontiac, Michigan, which manufactures half-ton, three-quarter-ton, and one-ton trucks; (2) the Moraine Assembly Plant in Moraine, Ohio, which makes sport utility vehicles; and (3) the Lake Orion Assembly Plant in Lake Orion, Michigan, which builds Oldsmobile, Pontiac, and Buick sedans. *See* Complainant's Exhibit ("CX") 2, at 1 (Duncan Campbell, EPA Region 5, *RCRA Inspection Report: General Motors Corp. Pontiac East Assembly Plant* 1 (undated; inspected Mar. 20, 27-28, 2001)); CX 3, at 2 (Duncan Campbell, EPA Region 5, *RCRA Inspection Report: General Motors Truck Group Moraine Assembly Plant* 2 (dated Nov. 2, 2001; inspected Apr. 17, 2001)); CX 4, at 1 (Duncan Campbell, EPA Region 5, *RCRA Inspection Report: General Motors Corp. Lake Orion Assembly Plant* 2 (dated Oct. 17, 2003; inspected Jan. 28, 2003)).

Each of GM's assembly plants has many unique features, but, as a general matter, each plant organizes its work activities into three major departments: (1) a body assembly shop, where sheet metal panels, hoods, doors, fenders, floor pans, and other parts shipped from off-site are welded together to form automobile cabs and bodies; (2) a paint shop,

---

[6] As mentioned in Part I.C below, the ALJ held a nine-day evidentiary hearing in this case, running from June 20 through June 30, 2005. The transcript from that hearing exists in two versions: a version containing material claimed by GM as "confidential business information," or "CBI," and a redacted, CBI-free version. The redacted, non-CBI-containing transcript is cited in this opinion as "Tr.," preceded by a volume number that corresponds to the day of the hearing. For example, "3 Tr." denotes the transcript from the third day of the hearing, which was June 22, 2005, while "7 Tr." denotes the transcript from the seventh day of the hearing, or June 28, 2005. In addition, citations to the evidentiary hearing transcript will generally include, in a parenthetical after the citation, the last name of the witness (or witnesses) whose testimony is being referenced.

where the cabs and bodies are painted with primer, base, and finish coatings; and (3) a general or final assembly area, where dashboards, windows, and seats are installed, engines, axles, and drivetrains mounted, and finish and trim work conducted. *See* Joint Stips. ¶ 12, at 3; CX 2-4 (RCRA inspection reports). GM's assembly facility buildings are very large, covering dozens of acres of land, and they are highly mechanized, containing miles of conveyor systems that transport the parts and vehicles through the assembly processes in a sequential fashion, from body shop to paint shop to general/final assembly. *See* 4 Tr. at 25-31 (Hresko) (noting that Lake Orion plant, as an example, contains 42 miles of conveyance systems within 85 acres of buildings); CX 2, at 1-4; CX 3, at 2-4; CX 4, at 2-4.

According to GM, the engineering challenges presented by mechanized assembly line painting are formidable, and thus over the years the company has engaged paint shop designers, chemists, and other specialists to assist it in developing painting systems, paints, and paint cleaners that will optimize the paint shop performance of its assembly plants. *See* 5 Tr. at 29-42 (Wozniak), 231-35 (Warren); 6 Tr. at 20-21 (Chaput); 7 Tr. at 119-20 (Winkler). Although the specific details differ from paint shop to paint shop depending on vehicle-, paint-, and plant-related particulars, GM's painting process generally consists of three main steps: (1) pre-painting preparation, where automobile bodies are washed, etched, coated, and sealed; (2) priming, conducted in primer paint booths, where bodies are sprayed with primer paint; and (3) finish painting, conducted in top coat paint booths, where bodies are sprayed with base and top or clear coat paints. 4 Tr. at 26-29 (Hresko), 91-94 (Blair).

GM uses a variety of products to prime, paint, and topcoat its vehicles, including solvent-based paint and water-based paint of assorted types.[7] Solvent-based paint contains three primary components:

[7] "Solvent-based paint" is denoted as such because the paint formulation contains organic (i.e., carbon-containing) solvent or solvents such as acetone or xylene. Water is also a solvent, but it is not an organic solvent and thus water-based paint falls (continued...)

(1) pigments, which are inert organic compounds mined from the earth that impart color; (2) resins (also called "polymers" or "binders"), which are long-chain molecules that cross-link to form protective coatings; and (3) paint solvents, which mobilize resins and pigments, reduce viscosity,[8] and enable the paint to flow properly. 4 Tr. at 94-97 (Blair); 5 Tr. at 203-05 (Warren). Paint solvents mobilize the other components by solubilizing (i.e., dissolving) the resins, which then carry the pigments (which are inert and thus insoluble) along in suspension as they are applied to the surfaces being painted. 2 Tr. at 26, 29 (Kendall); 5 Tr. at 206-07, 209-11 (Warren); Joint Stips. ¶ 15, at 3. As a general matter, solvent-based paints consist of approximately 50% paint solids (pigments and resins) and 50% paint solvents. 1 Tr. at 286 (Kendall); 2 Tr. at 34-38 (Kendall); 5 Tr. at 78-80 (Wozniak); 7 Tr. at 131-32 (Winkler).

GM employs several types of applicators to paint its vehicles, including robotic spray nozzle applicators and electrostatic bell applicators and stationary (nonrobotic) bell applicators, depending on the specific configuration and needs of each individual assembly plant. 4 Tr. at 116-20 (Blair); Joint Stips. ¶¶ 17, 35, at 4, 8. GM stores paint in "paint mix rooms" or "paint kitchens" in its plants and pipes it to the paint applicators through manifolds, which are rectangular or square steel blocks with valves cored out to control the flow into the applicators of different paint colors. 4 Tr. at 28 (Hresko), 97, 150-56 (Blair); 6 Tr. at 23-24, 32-38 (Chaput); Joint Stips. ¶¶ 19-20, at 4-5. Each paint applicator has its own associated manifold, flow meter, and piping

---

[7](...continued)
into a separate category than solvent-based paint. The alleged RCRA violations in this case involve GM's use of solvent-based coatings only, not water-based coatings.

[8] Viscosity is a property of "resistance to flow" in a fluid substance. *See* Webster's Third New International Dictionary 2557 (Philip Babcock Gove ed., 1993). Viscosity reduction is one of the primary functions solvents provide in solvent-based paint. 5 Tr. at 226-27 (Warren). GM facilities keep careful tabs on the viscosity of their paints by means of daily dip tube testing of the paint tanks and subsequent viscosity adjustment as needed. *Id*. at 226-28 ("[y]ou don't want a paint that's too thick to apply because you have poor flow," and "[y]ou don't want a paint that's too thin because it's going to run off * * * the vehicle").

through which the various paints are delivered for application to the vehicles. Joint Stips. ¶ 20, at 4-5; *see id*. fig. 2 (diagram of manifold, flow meter, and paint applicator). All of the paint applicators are situated within climate-controlled environments inside paint booths, and vehicles travel in and out of the paint booths on conveyer systems. 4 Tr. at 26-29 (Hresko); Joint Stips. ¶¶ 13, 16-17, at 3-4.

GM organizes the vehicles coming down the manufacturing lines by criteria other than color, so paint color changes can be required very frequently, sometimes as often as between every vehicle. 4 Tr. at 97-98 (Blair). Thus, one of the primary challenges in designing paint shops is the matter of cleaning the paint applicators and associated manifolds and piping effectively and efficiently enough to ensure a smooth, homogeneous flow of paint of the proper color at all times, with a minimum of disruptions or delays in the continuous progression of vehicles through the paint shop. Failures to adequately clean the painting equipment between these color changes can cause color defects on the vehicles, such as speckled, streaked, or marbled finishes or off-specification colors, which generally cause vehicles so affected to fail GM's quality standards and consequently be pulled out of the regular assembly lines and diverted onto time-consuming repair/repaint lines. 4 Tr. at 31-32 (Hresko); 7 Tr. at 97-98 (Winkler). Vehicles can also fail GM's quality standards if they are struck by pieces of dried paint that fly off a paint applicator ("spitters"), causing indentations in the paint surfaces and resulting in the diversion of vehicles so affected onto the repair/repaint lines. 4 Tr. at 31-32, 51-53 (Hresko); 7 Tr. at 96-97 (Winkler). These kinds of problems slow GM's overall paint shop production rate, so the company actively attempts to minimize them as much as possible by frequently cleaning its paint systems.

GM employs purge solvents (as distinguished from "paint solvents," just described) to clean the equipment used to apply solvent-based paint. Purge solvents are specifically tailored to solubilize and suspend particular kinds of solvent-based paint coatings at particular facilities. 5 Tr. at 188-90, 195-99, 216, 234 (Warren); Joint Stips. ¶ 24, at 5. The solvents are formulated, like paint solvents, of varying combinations of organic chemicals, such as acetone, butanol, ethyl

benzene, methyl isobutyl ketone, naphtha, toluene, xylene, and a host of others, and they consist of 100% solvent. *See*, *e.g.*, 1 Tr. at 284-88 (Kendall); 7 Tr. at 130-31, 238 (Winkler); CX 3, at 5 n.9. Purge solvents clean paint equipment by solubilizing paint resins, suspending paint pigments, reducing paint viscosity, and allowing the dispersion and removal of waste paint solids. *See* 5 Tr. at 223-35 (Warren); 7 Tr. at 120 (Winkler); Joint Stips. ¶ 37, at 9.

GM's cleaning protocol for its painting equipment is called the "purge process." GM "purges" the equipment by injecting purge solvent into the manifolds and applicators and introducing several "air chops," or quick bursts of highly pressurized air, to distribute the purge solvent over the interior surfaces of the equipment being cleaned, thereby removing all resident paint from the internal parts of the equipment and leaving it cleaned and ready for the next paint job. 4 Tr. at 106-15, 120-22 (Blair); 7 Tr. at 121-22 (Winkler). Exterior surfaces are also purged in varying ways depending on the type of paint applicator: applicators on robots are rotated down into "gun boxes" in the paint booths, where purge solvent is introduced to remove any paint adhering to the external portions of those applicators, whereas stationary applicator exteriors are sprayed with purge solvent while in position in the paint booths. 4 Tr. at 122-27 (Blair). These exterior cleanings only comprise ten percent of the spray gun applicator purge process and two to three percent of the bell applicator purge process; the bulk of the purging goes on inside the manifolds, flow meters, piping, and applicators because that is where most of the paint targeted for removal is located.[9] *Id.*; 5 Tr. at 229 (Warren).

GM's paint shops are configured to automatically purge the paint manifolds, applicators, and associated equipment very quickly in between every change in paint color. 5 Tr. at 222, 224 (Warren). The

[9] The solvent/paint mixtures from the external purges of the nonrobotic bell applicators, along with overspray that occurs during the painting processes in the paint booths, fall into water wash systems that run underneath the spray booths and are conveyed to wastewater treatment equipment. *See* 4 Tr. at 101-04, 123-24, 208-09, 220 (Blair). The handling and ultimate disposition of this solvent- and paint-containing water are not at issue in the present case.

automatic purge process (plus a color refill) takes only seven to ten seconds. 4 Tr. at 98, 115 (Blair). GM also conducts automatic purges of the manifolds and applicators every *x* number of jobs (e.g., at the Moraine facility, the painting equipment is purged every five to ten jobs of the same color; in Lake Orion's clear coat booths, the equipment is purged every twenty jobs). 4 Tr. at 100-01 (Blair); 6 Tr. at 22 (Chaput); CX 3, at 5.

The mixture of purge solvent and paint waste that results from all these cleaning activities is called "purge mixture." Purge mixture consists of approximately 20% paint and 80% purge solvent, which equates to 10% paint solids and 90% solvent (because, as mentioned above, paint is comprised of solids *and* solvent). 1 Tr. at 286 (Kendall); 2 Tr. at 34-37 (Kendall); 7 Tr. at 132-34 (Winkler). Purge mixture is piped from the paint applicators and gun boxes to temporary storage containers called "purge pots" that are located near the paint booths (usually outside and underneath the booths). These pots range in size from thirty to sixty gallons or so (although some may be as small as three or four gallons) and contain mixers, agitators, pumps, and associated equipment to keep the paint solids in the purge mixture in suspension. 5 Tr. at 54-56 (Wozniak); 6 Tr. at 41, 49-51 (Chaput); Joint Stips. ¶ 26, at 7. After a specified volume of purge mixture is collected in the purge pots, it is pumped into piped conveyance systems that carry the mixture through the assembly plants from the paint booths to large "purge mixture storage tanks," which range in size from 6,000 to 23,000 gallons. 5 Tr. at 56-69 (Wozniak); Joint Stips. ¶ 27, at 7. These piped conveyance systems and associated purge pots and equipment are sometimes referred to as GM's "purge solvent recovery systems" or sometimes simply as piping and equipment "downstream" of the paint manifolds and applicators.[10]

---

[10] These long piping systems have not always been a feature of automobile assembly plant design. In the 1950s-1960s, auto bodies were painted by hand rather than by automated systems. Paint spray booths in plants across the United States were outfitted with water wash systems that consisted of long troughs along the tops of the booth walls that overflowed down the walls in "flood sheets," which then flowed into wastewater collection systems. 5 Tr. at 70 (Wozniak). To change colors, an operator

(continued...)

As purge mixture flows into the purge pots and through the conveyance pipes toward the purge mixture storage tanks, the force of gravity causes a portion of the paint solids to settle out of the purge mixture solution. 2 Tr. at 66-67, 69-71 (Kendall), 305 (Benson); 5 Tr. at 75-77, 89-93, 96-97 (Wozniak), 206 (Warren); 6 Tr. at 46-49 (Chaput). The solids then adhere in varying degrees to the insides of the purge pots, pipes, and associated equipment, particularly in places where interior surfaces are rough and where the pipes lift long distances vertically or bend sharply, which causes the purge mixture to slow and provides the solids opportunities to settle out of solution. 2 Tr. at 58, 71 (Kendall); 5 Tr. at 89-90 (Wozniak); 6 Tr. at 45-46 (Chaput). Paint solids are also left behind, forming a residue or film on the surfaces of the piping and equipment, when solvent evaporates and is no longer

---

[10](...continued)
painting a vehicle would simply disconnect a hose carrying the current color and exchange it for another hose carrying a new color. The operator would then spray the contents of the second hose into the water curtain until the new color flowed out clearly, at which point he would proceed to paint the next vehicle. *Id*. at 70-71; *see id*. at 71 ("[T]o put [these activities] in context, you must understand that this was pre-Clean Air Act time and it was pre-environmental concern time. It was when we really thought that we could do anything to the world and it would have no impact.").

Purge solvents began to be employed in painting processes in the 1970s, and water curtains were partially phased out in favor of "pseudo-gun boxes," which collected used purge solvent and waste paint and conveyed those materials outside the paint booths into storage drums. *Id*. at 72. These drums were colloquially called "slop drums" and were used to accumulate not only purge solvent/paint mixtures but all manner of other materials employed during the manufacturing processes as well, including asphaltic sealers, kerosene, floor cleaners, and the like. *Id*. at 110-11. The water wash systems that remained caught overspray from the paint applicators, and chemicals were added to encapsulate the paint solvent materials and create sludges that would sink and could eventually be removed from the collection systems using jackhammers. *Id*. at 71-72, 111.

Later, as automated paint systems were introduced to the industry, and as Clean Air Act requirements began to go into effect, slop tanks were phased out, and paint shop designers began developing piping systems that would convey purge solvent/paint mixtures to storage tanks at a distance from the paint shops. Different chemicals were added to the water wash systems to encapsulate the (now minimal) solvent/paint overspray and ensure it would float (rather than sink) so that it could be skimmed off during the wastewater treatment process. *Id*. at 52-53, 111. This is generally the configuration of assembly plants today. *Id*.

available to carry the solubilized solids downstream. 2 Tr. at 56-59, 65-66, 69 (Kendall); 5 Tr. at 75-77, 79-80 (Wozniak), 208-11, 213-14, 230-31, 256-57 (Warren). The purge solvent in successive waves of purge mixture resolubilizes and resuspends these "stuck" paint solids and, in so doing, prevents the downstream piping and equipment from becoming clogged with paint. 2 Tr. at 42, 56, 59-60, 69-73 (Kendall), 249, 253, 305-06, 321, 323-24 (Benson); 4 Tr. at 234-35 (Blair); 5 Tr. at 76-84, 87-93, 164-65 (Wozniak), 230-35, 239, 256-57, 289-90 (Warren); 7 Tr. at 121 (Winkler); *see* Joint Stips. ¶¶ 36-37, at 9; Respondent's Exhibit ("RX") 197 & RX 198 (diagrams of raw paint in piping with and without purge solvent).

To assist in combating the potential clogging problems in the downstream piping and equipment, all three plants in this case routinely conduct one or more *manual* purges (in addition to the *automatic* purges described above) of the paint applicators, manifolds, and associated equipment: (1) in the morning before operations begin; (2) at the mid-morning break; (3) at lunchtime; (4) at the mid-afternoon break; (5) in the evening before they go home for the night; (6) before the weekend; (7) before extended periods of shutdown such as the two-week Christmas break; and (8) during any line stoppages or breakdowns. 6 Tr. at 22, 24-27 (Chaput); 8 Tr. at 102-04 (Winkler). Manual purges take longer than automatic purges and typically consume more purge solvent than the automatic purges. 6 Tr. at 22 (Chaput). Two of the plants, Lake Orion and Moraine, also use "recirculation loops" downstream of the paint booths to keep the purge mixture in constant motion and thereby reduce opportunities for solids settling.[11] 4 Tr. at 236-44 (Blair); 6 Tr. at 46-51,

[11] The Pontiac plant paints its vehicles with solvent-borne primer, solvent-borne base coat, and solvent-borne clear coat. Moraine paints its vehicles with powder primer, water-borne base coat, and solvent-borne clear coat. The Lake Orion facility paints its vehicles with solvent-based primer, water-based base coat, and solvent-based clear coat. 4 Tr. at 91-94 (Blair); 6 Tr. at 110 (Chaput). Given these types of paint choices and other factors (such as the number of vehicles painted and the consequent frequency of purging of paint applicators, the quantity of purge solvent used, the size and length of equipment and piping to be cleaned, and so on), Pontiac has more solvent circulating in its lines than Moraine or Lake Orion. As a result, the Pontiac plant does not need recirculation loops (continued...)

166-71, 176-77 (Chaput); 7 Tr. at 153-59, 307 (Winkler); Joint Stips. ¶¶ 28-29, at 7. In addition, one plant, Lake Orion, also adds approximately ten pounds (about one gallon) of fresh purge solvent to the purge pots every week to reduce the highly viscous nature of the paint resins contained within the particular paint that plant uses to coat its vehicles.[12] 5 Tr. at 132-34 (Wozniak); 6 Tr. at 91-93 (Chaput).

---

[11](...continued)
downstream of the paint applicators to help prevent settling of paint solids at low operating pressures, as Moraine and Lake Orion do. *See* 4 Tr. at 214, 226-27, 242-43 (Blair); 7 Tr. at 153-59 (Winkler).

[12] Two types of special clear coat paints are used at GM's facilities: (1) 2-K isocyanate at Lake Orion; and (2) silane technology at Moraine and Pontiac. These paints are more difficult to manage and clean up than other solvent-based paints.

PPG Industries manufactures 2-K isocyanate paint, which is the most durable clear coat on the market but is intensely reactive and thus difficult to manage and clean. The paint contains two components (a coating and a hardener) that are mixed together (by means of a static mixer at the bottom of the paint manifold) immediately before they are injected into the paint applicator. Once mixed, the two components react with each other and "cross-link" polymers to form a hard, durable shield over the base coat paint. The two components continue to react with each other as long as they are in contact, at ambient temperatures and in the oven (which accelerates the reaction process) and will completely harden in two to four hours if the reaction is not arrested. PPG Industries adds a chemical compound to the Lake Orion purge solvent to "end-cap" or arrest the 2-K isocyanate reactions. The compound reacts faster with the isocyanate and thus caps off the reactive sites on the isocyanate molecules and prevents them from cross-linking with the hardener polymer. *See* 4 Tr. at 161-62, 166 (Blair); 5 Tr. at 216-22, 235-53, 274-83 (Warren).

Dupont manufactures acrylosilane (silane) clear coat paint. Acrylosilanes are extremely durable, almost as durable as 2-K isocyanate, but not quite as reactive in the purge solvent recovery system as 2-K. Silanes are reactive to moisture and will form hard films or clumps when they come into contact with water. 4 Tr. at 161-62 (Blair); 7 Tr. at 144 (Winkler) (describing how silane overspray in the paint booths reacts with water, hardens, and hangs down from the grates like a fringe). This condition must be carefully managed because the humidity in the paint booths is high (70%) due to the presence of water wash systems underneath the booths and because high-pressure water streams are used to clean the booths on a daily basis. 4 Tr. at 165 (Blair); 7 Tr. at 147 (Winkler). Water can get into the purge pots through the gun boxes via condensation from the high humidity levels and also if those boxes are not adequately covered prior to the daily (continued...)

Once purge mixture completes its journey from the paint shop through the purge recovery system equipment and piping and flows into the purge mixture storage tanks, GM treats it as a "solid waste" that possesses the characteristic of "ignitability" (meaning the purge mixture, which is approximately 80-90% solvent, can ignite and pose a fire hazard at relatively low temperatures).[13] GM manifests the purge mixture as a RCRA hazardous waste and sends it off-site to a treatment, storage, and disposal facility at regular intervals, which vary from seven to ninety days at the three facilities. 7 Tr. at 25-28 (Bates); Joint Stips. ¶¶ 32-33, at 8. The material is reconstituted into fresh purge solvent at the reclamation facilities for reuse by GM, or occasionally the purge mixture is incinerated as an energy source. 5 Tr. at 185-88, 257-62, 266-67 (Warren); 7 Tr. at 17, 25 (Bates), 160-61, 196-200 (Winkler); 8 Tr. at 10-20 (Winkler); Joint Stips. ¶ 34, at 8. Purge solvent can be repeatedly reclaimed from purge mixture and reconstituted into fresh purge solvent, and such solvent is cheaper for GM to purchase than purge solvent manufactured directly from petroleum hydrocarbons. 4 Tr. at 210-11 (Blair); 5 Tr. at 188, 258-62 (Warren); 7 Tr. at 160, 198-99 (Winkler). GM witnesses testified that this cost incentive, combined with other incentives and requirements established under the Clean Air Act to minimize the volatile organic compound emissions produced by solvents, motivate GM to treat purge solvent and purge mixture as valuable commodities in its assembly plants. *See*, *e.g.*, 4 Tr. at 183-84, 239 (Blair); 5 Tr. at 260-62 (Warren); 7 Tr. at 105-06, 160-61, 225-34 (Winkler).

---

[12](...continued)
manual cleaning of the booths with high-pressure water hoses. 5 Tr. at 296 (Warren); 8 Tr. at 6-7 (Winkler).

[13] Notably, although GM treats purge mixture as a solid/hazardous waste at the point it enters the purge mixture storage tanks, GM's legal position is that purge mixture is *not* a waste there but rather is a partially contaminated solvent still in use. *See*, *e.g.*, *infra* Parts II.A.3.c.v, II.B & note 52.

C. *Procedural Background*

EPA Region 5 ("Region") inspected the Pontiac, Moraine, and Lake Orion facilities in March 2001, April 2001, and January 2003, respectively. Joint Stips. ¶ 1, at 1. Based on information gathered during these inspections, the Region filed an administrative complaint and compliance order on October 17, 2003, alleging that GM violated RCRA and the subparts J, BB, and CC regulations found in 40 C.F.R. parts 264 and 265, and/or the corresponding state regulations, at the three facilities, and proposing the assessment of a civil penalty therefor. *See* Complaint and Compliance Order (Oct. 17, 2003). The Region alleged, among other things, that GM failed to: (1) obtain certified assessments of the structural integrity of the assembly plants' downstream purge pots, piping, and associated equipment (i.e., of the purge solvent recovery systems); (2) demonstrate that the purge solvent recovery systems had been tested for tightness prior to being placed into use; (3) provide secondary containment for the equipment and piping comprising the purge solvent recovery systems; (4) inspect various components of the systems and maintain records of such inspections; (5) mark all equipment carrying hazardous waste; and (6) conduct initial and annual inspections of the fixed roof and closure devices on the purge mixture storage tanks. *See id*. ¶¶ 59-97, 104-140, 144-188, at 11-17, 18-23, 24-31. On November 21, 2003, GM filed an answer to the complaint denying the Region's allegations and requesting a hearing before the ALJ. *See* Answer of General Motors Corp. and Request for Hearing (Nov. 21, 2003).

From June 20 to June 30, 2005, the ALJ held an evidentiary hearing for this case in Detroit, Michigan. At the hearing, the ALJ heard testimony from five witnesses for the Region, two of whom were qualified as experts in the fields of chemistry and/or hazardous waste analysis, and nine witnesses for GM, five of whom were qualified as experts in the fields of chemistry, paint shop design and operations, purge solvent and paint purging processes, and/or similar areas. The ALJ subsequently issued her Initial Decision in this case on March 30, 2006, in two versions. One version contained confidential business information ("CBI") and was marked as such, while the other version

was intended to be a nonconfidential version with all CBI redacted. Upon review, the parties determined that the purportedly non-CBI version inadvertently contained some CBI, so the ALJ ordered that version destroyed. She then issued a second CBI-redacted version on April 14, 2006. That version is the one referenced, cited, and analyzed in this opinion.

The ALJ held, among other things, that purge solvent is "spent," and thus qualifies as a "solid waste" and a "hazardous waste" under the RCRA regulations, "upon cleaning the manifolds and associated applicators, whereby the paint solids and resins mix with and contaminate the purge solvent, thus forming the purge mixture." Initial Decision ("Init. Dec.") at 17-18. On May 19, 2006, GM filed an appeal of the Initial Decision, pursuant to the Consolidated Rules of Practice Governing the Administrative Assessment of Civil Penalties and the Revocation/Termination or Suspension of Permits at 40 C.F.R. § 22.30(a)(1), challenging this and other holdings of the ALJ. *See* GM's Brief in Support of Its Notice of Appeal ("App. Br."). The Region subsequently filed a response to GM's appeal on July 23, 2006, in CBI and non-CBI forms. *See* Complainant's Response Brief, CBI Redacted ("Resp. Br."). Upon review of the filings, the Environmental Appeals Board ("Board") determined that oral argument would assist it in its analysis of the issues presented in the case. Accordingly, on September 28, 2006, the parties presented oral argument before the Board in Washington, D.C. *See generally* Transcript of September 28, 2006 Oral Argument Proceedings ("OA Tr."). The case now stands ready for decision by the Board.

## II. *DISCUSSION*

The Board reviews an administrative law judge's factual and legal conclusions on a *de novo* basis. 40 C.F.R. § 22.30(f) (the Board shall "adopt, modify, or set aside" the ALJ's findings of fact, conclusions of law, or exercise of discretion); *see* Administrative Procedure Act § 8(b), 5 U.S.C. § 557(b) ("[o]n appeal from or review of the initial decision, the agency has all the powers [that] it would have in making the initial decision except as it may limit the issues on notice or by rule").

In so doing, the Board will typically grant deference to an administrative law judge's determinations regarding witness credibility and the judge's factual findings based thereon. *See In re City of Salisbury*, 10 E.A.D. 263, 276, 293-96 (EAB 2002); *In re Ocean State Asbestos Removal, Inc.*, 7 E.A.D. 522, 530 (EAB 1998); *In re Echevarria*, 5 E.A.D. 626, 639 (EAB 1994). All matters in controversy must be established by a preponderance of the evidence. 40 C.F.R. § 22.24(b); *In re Mayes*, 12 E.A.D. 54, 62 (EAB 2005), *aff'd*, No. 3:05-CV-478, 2008 WL 65178 (E.D. Tenn. Jan. 4, 2008).

On appeal, GM presents five primary issues for the Board's review. First, GM contends that the ALJ erred by holding that purge material is "discarded" at the point it exits the paint applicators and therefore qualifies as a waste that must be managed in accordance with RCRA subtitle C. App. Br. at 16-25. GM labels this its "statutory argument," postulating that EPA is authorized by Congress to regulate only certain specific materials – e.g., "discarded" ones, per the definition of "solid waste" in RCRA § 1004(27), 42 U.S.C. § 6903(27) – and that any interpretation of EPA's RCRA regulations that would allow the Agency to regulate materials that are *not* actually "discarded" under the statute would improperly expand EPA's statutory jurisdiction. App. Br. at 16. Second, GM claims that the ALJ erred by holding that the purge material is "spent" at the point it exits the paint applicators, therefore becoming a waste that must be managed pursuant to subtitle C. *Id*. at 25-54. GM labels this its "regulatory argument" and notes that it involves a careful analysis of the point, if any, at which a "solid waste" and a "hazardous waste" is generated by the company in its paint purging process. Third, GM claims that even if the purge material were "spent" downstream of the paint applicators, it still would not be regulated under subtitle C because it qualifies for two regulatory exemptions: (1) the "manufacturing process unit" exemption; and (2) the "totally enclosed treatment facility" exemption. *Id*. at 54-63. Fourth, GM argues that EPA's regulatory interpretation of "solid waste" is inconsistent with prior Agency interpretations of the term and that the new interpretation has been improperly imposed on the regulated community by means of enforcement proceedings rather than properly promulgated through notice-and-comment rulemaking. *Id*. at 63-69. Fifth and finally, GM

contends that when EPA is enforcing the State of Michigan's laws, as it is in this case with respect to the Pontiac and Lake Orion plants, the Agency is bound by the State's determination that purge mixture is not a solid waste until it reaches the purge mixture storage tanks. *Id*. at 69-74.

In Part II.A of the analysis below, we begin with the pivotal issue in the case, which is GM's "regulatory" argument: At what point in GM's paint purging process, if any, does purge solvent become a "spent material" and thus a "solid waste" and a "hazardous waste" within the meaning of the RCRA regulations? In Part II.B, we turn our attention to GM's "statutory" argument, while in Parts II.C through II.E, we address the regulatory exemptions, the consistency of EPA's interpretation of "spent material," and the enforcement of state law issues, respectively.

A. *The Point of Generation of a Hazardous Waste: When Is Purge Solvent "Spent"?*

The ALJ colorfully writes that the litigants in this case "cross swords" on the issues of whether used purge solvent qualifies as "spent material" at any point in GM's automobile assembly process and, if so, where, precisely, that point is located. Init. Dec. at 20. Under the statutory and regulatory definitions discussed in Part I.A above, these issues are critical ones because they identify the "point of generation," if any, at which solvents used in the painting process become "solid wastes." Because solvents are ignitable, the point at which they become "solid wastes" is also, in this case, the point at which they become "hazardous wastes" and thereby subject to regulation under RCRA subtitle C. Upon review of the facts and law presented to her, the ALJ held that GM's purge solvent becomes a waste within the meaning of RCRA and its implementing regulations "upon cleaning the manifolds and associated applicators, whereby the paint solids and resins mix with and contaminate the purge solvent, thus forming purge mixture."[14] *Id*.

---

[14] The ALJ held that the point of generation at the Lake Orion plant differs slightly from the point of generation at the Pontiac and Moraine plants, occurring when (continued...)

at 17-18. The ALJ selected this moment as the point of generation of a hazardous waste because the contaminated purge solvent is, in her view, "spent" at that point in the process; it cannot be used further for "the purpose for which it was produced without processing," which purpose is, she held, cleaning the paint manifolds and applicators. *Id*. at 34.

In the course of her analysis, the ALJ examined two issues primarily: (1) the proper interpretation of the phrase "the purpose for which it was produced," as used in the definition of "spent material"; and (2) the proper application of EPA's continued use policy for solvent. *See* Init. Dec. at 16-40. In the pages below, we will examine these issues, and the arguments raised on appeal about each of them, in detail. Notably, the questions of whether and (if so) where purge solvent used to purge automotive paint systems becomes "spent" have not, to our knowledge, been addressed at this writing by the federal courts or any administrative body other than the ALJ; these matters thus are questions of first impression for the Board. We therefore begin our review of these issues by taking a careful look at the regulatory history of the terms "solid waste" and "spent material" to better understand the meanings EPA intended to assign to these terms while implementing Congress' statutory directives in RCRA. After a survey of the regulatory developments, we move on to the analyses of arguments pertaining to the meaning of "the purpose for which it was produced" and the continued use policy.

1. *Regulatory History of the Terms "Solid Waste" and "Spent Material"*

As mentioned in Part I.A above, Congress defined the term "hazardous waste" as "a solid waste, or combination of solid wastes," that, "because of its quantity, concentration, or physical, chemical, or

---

[14](...continued)
purge mixture exits mini-purge pots in the paint booths on its way to larger purge pots and the purge solvent recovery system. *See* Init. Dec. at 18 n.13, 35-36. With this fact noted, we will, for simplicity's sake, refer throughout this decision to the point of generation determined by the ALJ as being the point where purge mixture exits the paint manifolds and applicators.

infectious characteristics," may cause or significantly contribute to an increase in mortality or serious illness or pose a substantial hazard to human health or the environment when improperly treated, stored, disposed of, or otherwise managed. RCRA § 1004(5), 42 U.S.C. § 6903(5). By clear congressional design, only material that is first a "solid waste" under RCRA can be a "hazardous waste" under the statute. Congress directed EPA to promulgate regulations to implement the RCRA subtitle C program, and EPA began its preliminary attempts to do so by soliciting public input on the pivotal definition of "solid waste."

The Agency faced significant challenges in attempting to delineate principled boundaries for such a term, given the diverse array of sources and activities generating materials that could be legitimate candidates for regulation under the statute. The Agency acknowledged that in crafting this definition, it was attempting to distinguish true "wastes" from materials that appear to be wastes but are actually "products" or "chemical intermediates" in ongoing manufacturing or production processes. *See* Hazardous Waste Management System: Identification and Listing of Hazardous Waste, 45 Fed. Reg. 33,084, 33,093 (May 19, 1980). EPA received numerous public comments suggesting that the line of demarcation between a "solid waste" and other materials could be drawn on the basis of, among other things, whether a material had value, was historically reused, or was sometimes discarded. *Id*. The Agency evaluated all of the suggestions and concluded, after reviewing the statute and legislative history, that a "common thread" linking the types of materials Congress intended to regulate under subtitle C was the fact that such materials were "sometimes discarded." *Id*. Accordingly, EPA issued an interim final rule in May 1980 that defined "solid waste" as "any garbage, refuse, sludge or any other waste material" that results from industrial and other types of operations and that: (1) is discarded; (2) is accumulated, stored, or treated prior to being discarded; (3) has served its original intended use and sometimes is discarded; or (4) is a manufacturing or mining by-product and sometimes is discarded. *Id*. at 33,119.

After implementing this definition of "solid waste" for several years, EPA perceived a number of problems with its approach. As

written, the definition caused the Agency to treat certain materials as solid wastes regardless of whether they were disposed of or destined for recycling. This caused overregulation of some materials legitimately used as ingredients in production processes and underregulation of certain recycling activities that posed substantial environmental risks. *See* 48 Fed. Reg. 14,472, 14,475 (Apr. 4, 1983). EPA noted that the "sometimes discarded" test caused many product-like materials, including product-like sludges and by-products that still had legitimate uses, to be categorized as "solid wastes" (unless the material was never thrown away). *Id*. The Agency explained that it never intended to classify these legitimate by-products as solid wastes but acknowledged that "a zealous but literal reading of the regulation yield[ed that] result." *Id*.

Accordingly, the Agency decided to amend the definition of "solid waste" by jettisoning the focus on whether a material is "sometimes discarded" and replacing that idea with a regulatory scheme that concentrated instead on what a material actually is, how it is actually managed, and whether it poses a significant potential for environmental harm. *Id*. In April 1983, EPA introduced the term "spent material" into the regulatory milieu in the course of redefining the term "solid waste" to make clear that recycled materials of various sorts would henceforth be regulated as discarded solid wastes under RCRA. *Id*. at 14,476. EPA published a proposed rule establishing five categories of recycling activities, including waste incineration, reclamation, and accumulation, and then divided the categories further according to the type of waste involved, including "spent materials," sludges, by-products, and commercial chemical products. *Id*. The Agency proposed to define "spent material" as "any material that has been used and has served its original purpose." *Id*. at 14,508 (proposed to be codified at 40 C.F.R. § 261.2(b)(1)). The Agency discussed the term in the preamble to the proposed rule using slightly different language, explaining in that context that spent materials are "materials that have been used and are no longer fit for use without being regenerated, reclaimed, or otherwise reprocessed. Examples are spent solvents, spent activated carbon, spent catalysts, and spen[t] acids." *Id*. at 14,476.

The Agency altered this definition in 1985 when it issued the solid waste rules in final form. The final definition, which is still in effect today, labels as "spent" "any material that has been used and as a result of contamination can no longer serve the purpose for which it was produced without processing." Hazardous Waste Management System; Definition of Solid Waste, 50 Fed. Reg. 614, 663 (Jan. 4, 1985) (codified at 40 C.F.R. § 261.1(c)(1)). In the new final definition, EPA eliminated the notion that a material is "spent" when it has served its "original purpose." The Agency replaced that notion with the ideas that a spent material is one that is *contaminated* in some fashion and thus is no longer serviceable for the *purpose for which it was produced*. In the preamble to the final regulations, EPA explained the reasons driving this changed language, stating as follows:

> We are continuing to define spent materials as those [that] have been used and are no longer fit for use without being regenerated, reclaimed, or otherwise re[]processed. In response to comments, however, we have altered the wording of the definition of spent material to express this concept more clearly. As the proposal was worded, a spent material was one that had been used and no longer could serve its original purpose. The Agency's reference to original purpose was ambiguous when applied to situations where a material can be used further without being reclaimed, but the further use is not identical to the initial use. An example of this is where solvents used to clean circuit boards are no[] longer pure enough for that continued use, but are still pure enough for use as metal degreasers. These solvents are not spent materials when used for metal degreasing. The practice is simply continued use of a solvent. (This is analogous to using/reusing a secondary material as an effective substitute for commercial products.) The reworded regulation clarifies this by stating that spent materials are those that have been used, and as a result of that use become contaminated by physical or chemical

> impurities, and can no longer serve the purpose for which they were produced. (This reworded definition appropriately parallels the definition of "used oil" – a type of spent material – in RCRA section 1004(36).)

50 Fed. Reg. at 624 [hereinafter 1985 Preamble]. EPA's explanation of further allowable unregulated uses, described using the circuit board cleaner/metal degreaser example above, has since come to be known as the Agency's "continued use of solvents" policy.

A year after promulgating this new definition of "spent material," EPA issued a RCRA guidance manual for recycled materials that provided further instruction on the Agency's views of these issues. The manual states:

> Distinguishing spent materials from products that are not yet "spent" may present some difficulty. As noted above, a spent material is any material that has been used and as a result of contamination can no longer serve the purpose for which it was produced without processing. EPA interprets "the purpose for which a material was produced" to include all uses of the product that are similar to the original use of the particular batch of material in question. For example, EPA cites the case of materials used as solvents to clean printed circuit boards (50 [Fed. Reg.] 624). If the solvents become too contaminated for this use but are still pure enough for similar applications (e.g., use as metal degreasers), they are not spent materials. Use of slightly contaminated solvents in this way is simply continued use of the original material rather than recycling of a spent material. However, the solvents would be spent materials if they had to be reclaimed before reuse or if the manner in which they were used was not similar to their original application. Examples of the latter are burning solvents as fuel, or using

> materials originally used as solvents as feedstocks in chemical manufacturing. * * *

RX 34, at 1-7 (Office of Solid Waste, U.S. EPA, *Guidance Manual on the RCRA Regulation of Recycled Hazardous Wastes* 1-7 (Mar. 1986)) [hereinafter 1986 Guidance Manual].

Finally, since the promulgation of the RCRA regulations in the 1980s, EPA's Office of Solid Waste has attempted on an ongoing basis to provide guidance on the applicability of the regulations to various specific fact patterns raised by members of the regulated community and other entities. These guidance documents, called "applicability determinations," also provide insight into the Agency's understanding of its regulatory program. We will discuss a number of these applicability determinations in the pages below. *See infra* Parts II.A.2.c.v, II.A.3.a, II.A.3.b.i, II.A.3.c.iii-.iv.

2. *The "Purpose" for Which a Material Is Produced*

As indicated above, EPA's current definition of "spent material" can be parsed as follows. A material is "*spent*" if it: (1) has been *used*; (2) is *contaminated*; and (3) *can no longer serve the purpose for which it was produced* because of the contamination. We begin by focusing on the qualifier "the purpose for which it was produced," explaining the ALJ's interpretation of the meaning of this phrase as well as her application of it to the facts of this case. We then summarize the parties' arguments on appeal from the ALJ's ruling. We conclude with our own analysis of the issue, in which we find clear reversible error in portions of the ALJ's reasoning on this topic.

a. *The ALJ's Analysis*

In her Initial Decision, the ALJ closely examined the definition of "spent material," with special attention given to the notion of a material's "purpose." GM had raised an argument that materials can be used for multiple purposes and are not considered by EPA to be "spent" under the RCRA regulations as long as they are still effective for those

purposes. *See* Init. Dec. at 17, 22. In considering this construction of "purpose," the ALJ observed that in ordinary circumstances, the plain meaning of words serves as a reliable guide to the interpretation of regulatory terms. *Id*. at 25 n.19. She noted that EPA's definition of "spent material" employs the singular form of the word "purpose" rather than the plural form, "purposes," and precedes the word "purpose" with the article "the." *Id*. at 25-26. These choices emphasized, in her mind, the singularity of "*the purpose*" contemplated by the regulations as being the *raison d'etre* of a given material. *Id*. at 25-26. Accordingly, she held that the plain language of the regulatory definition "calls for there to be *one* 'purpose' rather than *multiple* purposes" for which a material is produced. *Id*. at 26 (emphasis added). She therefore rejected, in this light, GM's argument that materials can be used for multiple purposes and not qualify as "spent" under the regulations. *See id*. at 22, 26.

The ALJ then examined the question whether the phrase "the purpose for which it was produced" could be construed as incorporating the concept of an "original" purpose that, once achieved, would render the material "spent." The ALJ entertained this question because the Region had argued below that purge solvent in purge mixture is no longer useful for its "original purpose" of purging paint out of manifolds and applicators. The ALJ rejected the Region's argument on the ground that the text of the "spent material" definition provides no clear references to an "original purpose" of any kind. Init. Dec. at 26. On the contrary, the ALJ noted that in its preamble to the final RCRA regulations EPA explicitly repudiated the "original purpose" concept and replaced it with the idea that a material can continue to be used for purposes that differ from the material's initial purpose and will not be considered "spent" until it is contaminated to such a degree that it is no longer serviceable for "the purpose for which it was produced." *Id*. at 26-27. In light of this explanation of EPA's reasons for altering the definition, and in the absence of persuasive countervailing arguments from the Region, the ALJ declined to hold that a material must be considered "spent" when further use of the material differs from its "original purpose." *Id*. at 27.

The ALJ found that a more appropriate test for determining the point at which a material becomes "spent" is to examine that material's "predominant purpose." Init. Dec. at 27. According to the ALJ, the United States Court of Appeals for the District of Columbia Circuit employed a predominant purpose test in *American Petroleum Institute v. EPA*, 216 F.3d 50 (D.C. Cir. 2000) ("*API II*"), in the course of determining when, if ever, "discard" of oil-bearing wastewaters at petroleum refineries has occurred such that the wastewaters would qualify as "solid waste." Init. Dec. at 27. The ALJ stated that "the D.C. Circuit recognized that the issue of whether the *predominant purpose* of an activity is discard requires an inquiry into facts and circumstances, and that where an industrial by-product may be characterized as either discarded or 'in process' material, EPA's choice of characterization is entitled to deference by the courts." *Id*. (emphasis added) (citing *API II*, 216 F.3d at 57). The ALJ hypothesized that a material might have a relatively insignificant original purpose in an early phase of a production process and a different, relatively significant predominant purpose in a later phase; in such a case, the material would not be spent, reasoned the ALJ, until after it exited the later production phase. *Id*.

Applying this "predominant purpose test" to the instant case, the ALJ evaluated two purportedly distinct purposes of purge solvent: (1) cleaning of paint applicators and manifolds; and (2) cleaning of downstream conveyance lines and associated equipment. The ALJ stated:

> Regarding the predominant purpose, there is no dispute that there would be no purge mixture downstream of the manifolds and associated applicators but for the need to clean paint out of those applicators and manifolds. * * * If GM did not need to clean the manifolds and associated applicators, it would never purchase the purge solvent in the first place and there would be no waste downstream of the equipment to manage. * * * Moreover, there would be no lines downstream of the manifolds and associated applicators

> to clog or unclog if GM did not need to clean its upstream painting equipment. * * *
>
> GM produced several witnesses who credibly testified that the purge mixture continues to perform solvent functions downstream of the paint applicators. Nonetheless, the residual cleaning function of the solvents in the downstream piping, after being contaminated with the paint solids, is secondary to the cleaning of the manifolds of associated applicators. The contaminated solvents in the purge mixture are not suitable for cleaning the manifolds and associated applicators. In fact, the solvents contaminated with the paint solids are not suitable to clean the manifolds and associated applicators until they are reclaimed and reconstituted, and some of the solvent in the purge mixture is never reclaimed. The value of the purge solvent is significantly higher than that of the purge mixture.

Init. Dec. at 31-32. The ALJ consequently held that "the predominant purpose of the solvents is to clean the manifolds and associated applicators. Secondary to this purpose, by far, is the limited cleaning power of the contaminated solvents present in the purge mixture." *Id.* at 34. By this logic, the purge solvent is "spent" at the point it exits the paint applicators, because at that point it allegedly has been used for the purpose for which it was produced and is too contaminated to be used for that purpose again unless it is reprocessed first. Thus, the ALJ held purge solvent to be a RCRA hazardous waste from that moment onward through the assembly plant. *See id.* at 17-18, 40.

b. *The Parties' Arguments on Appeal*

On appeal, GM argues that the ALJ committed clear error in analyzing the "purpose" of purge solvent in the automobile painting process. GM asserts that the undisputed facts in the record establish that the *sole* purpose for which purge solvent is produced is to perform

solvent functions in two discrete locations in the painting process: (1) in the paint applicators and associated manifolds; and (2) in the purge solvent recovery system downstream of the paint applicators. App. Br. at 27 & n.11. GM quotes from the ALJ's own findings of fact, which incorporate information from the parties' joint stipulations and testimony from GM's expert witness on chemistry and purge solvents, as stating, "'Purge solvent is a separately purchased solvent mixture specifically formulated according to the design of the paint system at each facility and the types of paint being used. * * * Purge solvent is expressly formulated to perform solvent functions in the manifolds and associated applicators, as well as downstream of the applicators.'" App. Br. at 28 (quoting Init. Dec. at 9 (citing Joint Stips ¶ 24, at 5; 5 Tr. at 223-25, 230-31, 255-56 (Warren))). GM recites corroborating testimony from its own and the Region's witnesses, *see id*. at 28-29, and claims that, on the basis of this evidence, there is no dispute that the purge solvent is performing solvent functions downstream of the paint applicators and that performing those solvent functions is the purpose for which it was produced. *Id*. at 30. GM concludes that the purge solvent downstream of the paint applicators is being *used* and is not yet *spent*, and thus cannot be a "discarded material" or a "waste" under RCRA. *Id*. GM believes the ALJ erred in finding otherwise.

GM also argues that the ALJ's adoption of a "predominant purpose test" is erroneous. In this regard, GM points out first that the word "predominant" does not appear anywhere in the regulatory language pertaining to "spent materials," and that the ALJ conjured it out of "whole cloth." App. Br. at 35. Second, GM charges that the ALJ's interpretation of "purpose" as necessarily indicating only a singular purpose violates basic canons of statutory construction, which provide that, as a general matter, use of a singular tense includes the plural tense and use of the plural includes the singular. *Id*. at 35-36 (citing 1 U.S.C. § 1; *Public Citizen, Inc. v. Mineta*, 340 F.3d 39, 54 (2d Cir. 2003); *Cent. & S. Motor Freight Tariff Ass'n, Inc. v. United States*, 843 F.2d 886, 894 (6th Cir. 1988)); *see also* OA Tr. at 25-26 (referencing 40 C.F.R. § 260.3, which specifies that in parts 260-265 and 268 of the RCRA regulations, "[w]ords in the singular include the plural" and vice versa). Third, GM argues that the ALJ's construction is at odds with EPA's

intent in adopting the definition of "spent material," as explicated in the preamble to the applicable regulations. In that preamble, asserts GM, EPA explains that it removed the word "original," as used in the proposed rule, and reworded the definition of "spent material" to ensure further use of a material would be allowed even if such further use were "not identical to the initial use" of the material. App. Br. at 36 (quoting 1985 Preamble at 624). EPA's intent to allow further use is thwarted, argues GM, by the ALJ's holding that any secondary or different use by GM of purge solvent involves a "waste." *Id*. In short, GM claims that the ALJ's predominant purpose test "does not square with the express regulatory definition of 'spent material,' or with EPA's clarification of that definition in the preamble to its 1985 rulemaking – that a material may be reused for any use for which the material was *produced* to serve and is still fit to serve." *Id*. at 37.

In response, Region 5 argues that the ALJ correctly determined that the single "purpose" for which purge solvent is produced is to clean paint manifolds and applicators. Resp. Br. at 26. The Region agrees with the ALJ that purge solvent is too contaminated by the purge process to be reused again to clean manifolds and applicators, and therefore it is "spent" at the point it exits the applicators. *Id*. at 26-28. In the Region's view, the ALJ correctly found that GM would not purchase purge solvent but for the need to clean paint application equipment, and that GM installed the entire conveyance system of piping, pumps, purge pots, and other equipment downstream of the paint applicators simply to transport used, contaminated purge solvent to the purge mixture storage tanks, not to perform any positive manufacturing function at that point in the process. *Id*. at 27, 31.

On the other hand, the Region, like GM, explicitly disagrees with the ALJ's adoption of a "predominant purpose" test for determining whether a material is "spent." Resp. Br. at 28-29. The Region argues that the case relied on by the ALJ as the source for this test is not on point in the instant matter, for two reasons: first, because the case, *API II*, is a rulemaking challenge dealing with EPA's interpretation of the term "discarded," not the term "spent"; and second, because the court

in *API II* did not actually employ a predominant purpose test to decide whether a material is a waste under RCRA. *Id*. at 28-29 & n.30.

The Region explains that the D.C. Circuit was tasked in *API II* with judging whether the primary treatment of oil-bearing wastewaters at petroleum refineries is "'simply a step in the act of discarding'" or "'the last step in the production process before discard.'" *Id*. at 29 n.30 (quoting *API II*, 216 F.3d at 57). In the first instance, the wastewaters would qualify as RCRA-regulated "wastes," while in the second instance, they would not. The Region notes that in a rulemaking, the Agency had chosen to characterize primary wastewater treatment as an action equivalent to "discarding" the wastewater, but in a subsequent challenge to that rulemaking, the D.C. Circuit found no reasoned explanation in the administrative record for the Agency's choice in this regard. Analysis of the issue revolved around the question whether petroleum refineries' interest in complying with Clean Water Act effluent limits (i.e., their "compliance motivation") *predominated* over their interest in reclaiming as much oil as possible from the wastewater (i.e., their "reclamation motivation"), for purposes of determining whether the action of primary treatment more closely resembled waste discard or oil production. This comparative analysis, suggests the Region, is not an appropriate model for determining whether a particular material is "spent"; indeed, the Region muses, the concept of being "spent" appears to be "foreign to the nature of oil-bearing wastewaters" altogether. *Id*. at 28-29 & n.30. The Region reiterated its view at oral argument that the predominant purpose test is inappropriate and inconsistent with the plain language of the RCRA regulations and regulatory history of the term "spent material." OA Tr. at 79-80. The Region argues, moreover, that the ALJ did not need in any event to employ this test because the evidence in the record is sufficient, in its view, to support a finding that purge solvent is spent at the point it exits the paint applicators. Resp. Br. at 29.

c. *Analysis*

We agree with GM and the Region that the ALJ committed clear error in analyzing certain aspects of the meaning of the phrase "the

purpose for which it was produced," as included in the definition of "spent material." In the following subparts of this decision, we examine: (1) the concepts of single versus multiple "purposes"; (2) the notion of a "predominant purpose"; (3) the holding set forth in our recent decision in *In re Howmet Corporation*, RCRA (3008) Appeal No. 05-04 (EAB May 24, 2007), 13 E.A.D. ___, *appeal docketed*, No. 1:07-cv-01306 (D.D.C. July 23, 2007), that "the purpose for which [a material] was produced" is ordinarily determined by that material's initial deployment or application; (4) the extent of the initial deployment or application in cases involving similar possible "purposes"; and (5) the effect on the "purpose"/"spent" analyses of an Agency exception created for certain "continued uses." We end this part of the decision with a brief summary of our conclusions regarding the "purpose" for which GM's purge solvents were produced.

i. *Single versus Multiple Purposes*

First, we address the question whether the phrase "the purpose for which it was produced" has a singular or a multiple character. We reach this question because GM explicitly argues that the ALJ erred, as a matter of law, in her interpretation of this phrase as having only a singular character.[15] *See* App. Br. at 27 n.11, 35-36.

We note at the outset that various authorities indicate that, as a matter of elementary statutory and regulatory construction, the phrase "the purpose for which it was produced" should be generously construed

[15] While GM contends that the ALJ's interpretation of "purpose" as necessarily singular is erroneous as a matter of law, the company also contends that, as a matter of fact, the undisputed evidence in this case establishes a sole purpose for purge solvent, namely, to perform the same solvent functions in two locations (in the painting equipment and downstream). App. Br. at 27 n.11. We consider this factual dispute in Parts II.A.2.c.iv-.vi below in the context of discussions of the Board's recent decision in *Howmet* and of EPA's continued use policy.

unless the context dictates otherwise.[16] We take official notice of 40 C.F.R. § 260.3, cited by GM for the first time at the oral argument, *see* OA Tr. at 25-26; namely, that, in the RCRA regulations at issue in this case, words used in the singular include the plural and vice versa.[17] 40 C.F.R. § 260.3; *see In re Cutler*, 11 E.A.D. 622, 650-51 (EAB 2004) (information in the public domain is subject to official notice by the Board); 40 C.F.R. § 22.22(f) (official notice may be taken of any matter that can be judicially noticed in the federal courts). GM also cited to a general rule of statutory construction set forth at the beginning of the United States Code, which specifies that "[i]n determining the meaning of any Act of Congress, unless the context indicates otherwise – words importing the singular include and apply to several persons, parties, or things; [and] words importing the plural include the singular." 1 U.S.C. § 1 (cited in App. Br. at 35; OA Tr. at 26); *accord Public Citizen, Inc. v. Mineta*, 340 F.3d 39, 54 (2d Cir. 2003) (reference to "a tire" in federal statute means both one tire or two or more tires under the "elementary" rule of statutory construction that the singular ("a tire") includes the plural ("tires")) (cited in App. Br. at 35-36). These authorities provide general support for the notion that, in the absence of any contextual reason for finding otherwise, "the purpose for which it was produced"

---

[16] As GM correctly observes, courts apply the same rules of interpretation to administrative rules as they do to statutes. App. Br. at 27 (citing *Ala. Tissue Ctr. v. Sullivan*, 975 F.2d 373, 379 (7th Cir. 1992); *United States v. Ray*, 488 F.2d 15, 18 (10th Cir. 1973)). We do likewise. *See*, *e.g.*, *In re Rochester Pub. Utils.*, 11 E.A.D. 593, 603 (EAB 2004) ("[w]hen construing an administrative regulation, the normal tenets of statutory construction generally apply"), *appeal dismissed per stipulation sub nom. Minn. Ctr. for Envtl. Advocacy v. EPA*, No. 05-1113 (8th Cir. Jan. 12, 2005); *In re Bil-Dry Corp.*, 9 E.A.D. 575, 595 (EAB 2001).

[17] This regulation is directly applicable to the definition of "spent material" at issue in this case, as it was in effect five years prior to the time EPA promulgated that specific definition and continues to be in effect today. *See* Hazardous Waste Management System: General, 45 Fed. Reg. 33,066, 33,073 (May 19, 1980), *amended by* 51 Fed. Reg. 40,572, 40,636 (Nov. 7, 1986) (codified as amended at 40 C.F.R. § 260.3) (singular/plural rule of construction covers RCRA regulations set forth in 40 C.F.R. parts 260 through 265 and 268, including definition of "spent material" in 40 C.F.R. part 261).

should be interpreted to mean one or more purposes, not simply a single purpose.

Importantly, however, in reviewing EPA's attempts over the years to develop a regulatory program for "solid waste," it seems to us "reasonably clear that the Agency had in mind the notion of a material's 'purpose' as manifesting a *singular* character, not a multiple character." *Howmet*, slip op. at 29 n.41, 13 E.A.D. at ___. For example, in its earliest attempt to define "solid waste" in May 1980, EPA declared that a material that had "served its *original intended use*" would constitute a "solid waste." 45 Fed. Reg. 33,084, 33,119 (May 19, 1980) (emphasis added). This definition seems to indicate that EPA was focusing on the *user's intent in deploying a freshly produced material for its first time*, rather than the manufacturer's intent for the material. The manufacturer's intent for the material could include a range of potential uses (including the user's first or original intended use and also other subsequent or alternative uses as well) rather than simply one "original intended use." Later, in April 1983, the Agency proposed to define "spent material" as a material that had "served its *original purpose*." 48 Fed. Reg. 14,472, 14,508 (Apr. 4, 1983) (proposed to be codified at 40 C.F.R. § 261.2(b)(1)) (emphasis added). This language also seems to suggest that EPA contemplated a single original or first purpose for which a material would be used, rather than multiple purposes (not all of which could be "original" or first as to any particular material).

In January 1985, the Agency established the "continued use of solvents" policy in the context of determining whether a material has served the "purpose for which it was produced" and is therefore "spent." Under this policy, a continued use that meets certain criteria can provide an exception from the "spent" determination, so that a solvent that has been used to complete its initial task – i.e., its original/initial/first purpose – can continue to be used, in its partially contaminated state, to achieve a second task that is similar, though not necessarily identical, to the first one. For instance, when a solvent initially deployed to clean circuit boards becomes too contaminated to continue executing that task, it can be deployed again, as is, to degrease metal parts. According to the Agency, the solvent in this example is not considered "spent" when it is

used as a degreaser, although in the absence of the continued use, it would be characterized as "spent." *See* 1985 Preamble at 624.

In a March 1986 guidance manual for recycled materials, the Agency explained its ideas on these topics as follows:

> EPA interprets "the purpose for which a material was produced" to include all uses of the product that are similar to the original use of the particular batch of material in question. For example, EPA cites the case of materials used as solvents to clean printed circuit boards (50 [Fed. Reg.] 624). If the solvents become too contaminated for this use but are still pure enough for similar applications (e.g., use as metal degreasers), they are not spent materials. Use of slightly contaminated solvents in this way is simply continued use of the original material rather than recycling of a spent material. However, the solvents would be spent materials if they had to be reclaimed before reuse or if the manner in which they were used was not similar to their original application. Examples of the latter are burning solvents as fuel, or using materials originally used as solvents as feedstocks in chemical manufacturing. * * *

1986 Guidance Manual at 1-7. By focusing on the question whether the manner in which a particular batch of material is reused is "similar to [its] original application," the Agency makes clear its intention that allowable continued uses must be similar to or consistent with the material's original application (or, in other words, its *original intended use*). This focus again implicates the concept of the user's first (i.e., "original") application or deployment as informing a determination of the "purpose for which [a particular batch of material] was produced."[18]

---

[18] EPA's reference to the "original use" of a "particular batch of material" also implies that different "batches" of the same material may be applied or deployed in (continued...)

Accordingly, while GM is correct in arguing that 40 C.F.R. § 260.3 directly applies to the definition of "spent material," we think it is nonetheless sufficiently plain from the regulatory record that EPA had something else in mind here. In our view, the record supports a finding that EPA intended the clause "the purpose for which it was produced" to mean a *single* purpose, aimed at a particular batch of material. The 1985 Preamble and 1986 Guidance Manual establish that EPA intended to allow only *some* continued, unregulated uses of materials that might otherwise be considered to be solid and hazardous wastes, and not *any* continued uses whatsoever. The Agency chose to emphasize the first user's intent in deploying or applying a particular batch of material as a means of ensuring protection of human health and the environment while encouraging recycling/reuse of materials, consistent with RCRA's goals.

In light of these considerations, we hold that the regulatory history reveals an intent that overrides a formalistic application of § 260.3 in this context, and that the phrase "the purpose for which [a material] was produced" should be construed as meaning a single thing.[19] *See Howmet*, slip op. at 29 n.41, 13 E.A.D. at ___ ("where, as here, the regulatory context strongly suggests that a deliberate choice was made in favor of singular usage, and where that choice is not insignificant in

---

[18](...continued)
different ways by different users. For example, one party might purchase and deploy a batch of a particular solvent to serve as a diluent or extractant (i.e., using the solvent for its solvent properties), whereas another party might purchase and deploy a different batch of the same solvent to provide ingredients in the formulation of a chemical product (i.e., using the solvent for its nonsolvent properties). *See* 50 Fed. Reg. 53,315, 53,316 (Dec. 31, 1985) (distinguishing uses of a solvent that exploit the solvent's "solvent properties" from uses that do not involve its solvent properties). In such circumstances, the same solvent can be said to have a different "purpose for which it was produced" that is informed by the circumstances of the first application or deployment of each discrete batch of the solvent.

[19] In Part II.A.2.c.v below, we introduce the idea that a similar/consistent and legitimate "continuing use" of a material may serve, under EPA's regulatory scheme for "spent materials," to broaden that material's "purpose." In light of the conditions placed on qualifying continuing uses (discussed further below), this broadening effect does not, in our view, transform the character of "the purpose for which it was produced" from singular to multiple.

terms of regulatory impact, we will follow a contextual reading rather than a formalistic application of § 260.3 that ignores that context").

ii. *Predominant Purpose*

Second, we agree with both parties that the ALJ committed clear error in adopting a "predominant purpose test" for determining when a material is "spent" under the RCRA regulations. At the outset, we find it instructive that in the course of analyzing and ultimately rejecting the Region's argument that a material has an "original purpose," the ALJ found it significant that the present text of the regulation "provides no clear language indicating that it refers to [a material's] original purpose." Init. Dec. at 26. Precisely the same point may be made about the notion of "predominant purpose," as GM contends on appeal; no mention of "predominance" can be discerned anywhere on the face of the regulation defining "spent material." *See* 40 C.F.R. § 261.1(c)(1) (a "spent material" is "any material that has been used and as a result of contamination can no longer serve the purpose for which it was produced without processing").

Moreover, we find that the ALJ erred in choosing *API II* as a model for determining when a material is "spent." In her discussion of *API II*, the ALJ noted that in that case, "the D.C. Circuit recognized that the issue of whether the predominant purpose of an activity is discard requires an inquiry into facts and circumstances." Init. Dec. at 27 (citing 216 F.3d at 57). The ALJ correctly observed that the court in *API II* focused on the "purpose" of an *activity* (i.e., primary wastewater treatment), but what is at stake in the present case is the "purpose" of a *material*, not an *activity*.

A careful reading of *API II* reveals that the case does not address, even by analogy, the subtle distinctions in meaning contained in the definition of "spent material" that we are attempting to parse in the present dispute. The "material" in question in *API II* is water, a universal solvent, and neither the litigants nor the court in that case considered the notion that water is "used" in petroleum refineries and as a result of "contamination" with oil or other substances can no longer

serve "the purpose for which it [i.e., the water] was produced." Water is employed in *API II* to remove impurities from crude oil feedstock in the course of petroleum refining, but the question whether the water ever becomes so saturated with oil or other contaminants that it can no longer "serve its purpose" is never examined and is not at issue in any respect. Instead, the focus is on the activity of "primary wastewater treatment" and whether that particular activity constitutes "discard" or "production" of oil; the focus is not on the purpose of the material (i.e., the water) or the point at which that material is so contaminated that it can no longer achieve its purpose. In view of these distinctions, we find the ALJ's reliance on the D.C. Circuit's reasoning in *API II* to be misplaced in this very different legal and factual context.

We turn next for interpretative assistance to the regulatory history, which, like the language of the regulation itself, lacks any explicit mention of the idea that a material has a "predominant purpose." Instead, the regulatory history sets forth EPA's position that as long as a material is "fit for use" in fresh or partially contaminated form, it may continue to be used for the purpose for which it was produced without being subject to the requirements of RCRA. This means, as the preamble explains, that a solvent may be employed to clean circuit boards and then employed again to degrease metal parts, and during both activities EPA considers the solvent to be a product in use (rather than a product in use during the first activity and a spent, discarded, waste material subject to subtitle C during the second activity). Neither solvent activity (i.e., cleaning circuit boards or degreasing metal parts) is favored or "predominant" over the other.

According to the Region:

> The problem with predominant purpose is that it would force people to sort of choose between various uses and try to decide what is the main use and what is the * * * second most important use and that is not what the regulations or the [language] * * * we put in the Preamble [were] all about. * * * We are not looking for people [to] have to sort of choose between various

> uses and decide which is the most important. Sometimes you don't know what the use will be at the * * * outset of an operation. So while it may have * * * proved helpful to [the ALJ] here, I think there is tremendous danger in adopting this test in cases other than this one.

OA Tr. at 80. The Region did not expound on the "tremendous danger" it perceived in the predominant purpose test, but, given the breadth of activities nationwide that are potentially covered by RCRA subtitle C, we are cognizant of the need for caution and reluctant to embrace a novel test that lacks regulatory foundation. This caution, combined with the other flaws we identified in the predominant purpose idea, described above, lead us to hold that the ALJ clearly erred in adopting such a test for determining when a material is "spent."

iii. *"Purpose" Informed by Material's Initial Deployment/Application*

With the foregoing principles in mind, we look to *Howmet* for guidance on how to evaluate competing possible "purposes" and identify the "purpose for which a material is produced," as that phrase is meant by EPA to be construed, consistent with congressional intent, pursuant to 40 C.F.R. § 261.1(c)(1). We decided *Howmet* a year after the ALJ issued her ruling in the instant case and after GM filed its appeal. In so doing, we grappled, as here, with the meaning of the clause "the purpose for which [the material] was produced" and when a material should be considered to be "spent" under the RCRA regulations.

In that case, Howmet Corporation employed liquid potassium hydroxide ("KOH") to clean aluminum parts slated for use in various aerospace and industrial applications. When the KOH became too contaminated for further such cleaning, Howmet would ship the used KOH to either of two places: (1) a hazardous waste treatment, storage, or disposal facility; or (2) a company that used the KOH as a source of potassium and hydroxide ions in manufacturing fertilizer. EPA brought an enforcement action against Howmet, alleging violations of the RCRA

subpart C regulations in Howmet's handling of the used KOH sent to the fertilizer manufacturer. The central question of the case on appeal before the Board revolved around the "purpose" clause, with Howmet arguing that "the purpose for which KOH was produced" was the broad fundamental purpose of providing a concentrated source of hydroxide ions and potassium for a variety of applications, including metal cleaning and fertilizer manufacturing, and EPA arguing to the contrary that KOH's "purpose" was defined more narrowly by its initial use, which in this instance was cleaning metal parts.

In *Howmet*, we found that the undefined term "the purpose for which it was produced" was ambiguous.[20] *Howmet*, slip op. at 30-38, 13 E.A.D. at ___. After reviewing relevant RCRA provisions and related congressional documents and then analyzing EPA's regulatory definition of "spent material," the regulatory text as a whole, the regulatory history, and EPA interpretative guidance regarding the regulations, we held that these sources supported the following conclusion:

> [W]e read the reference to "the purpose for which it was produced" as contemplating a particularized and relational inquiry that is informed by the product's initial deployment or application. When dealing with a product that has a number of potential purposes, or applications, the particular purpose for which it is initially deployed is *the* purpose of concern under the regulation.

*Id*. at 39, 13 E.A.D. at ___. Thus, we found that the specific "purpose for which KOH was produced" in these circumstances was to serve as a metal cleaning agent, and reuse of used KOH to clean other metal parts would not give rise to coverage of the KOH as a "spent material." *Id*. Reuse of the used KOH to make fertilizer, on the other hand, would give rise to such coverage, we determined, because a "purpose" consisting of

---

[20] The term "purpose" is not specifically defined in the RCRA regulations or in any relevant preamble language.

supplying ingredients for fertilizer production was "substantially dissimilar" from a "purpose" of cleaning aluminum parts. *Id*.

In so holding, we rejected, as inconsistent with statutory and regulatory intent, Howmet's contention that "the purpose for which KOH was produced" was the broad fundamental purpose of providing a concentrated source of hydroxide ions and potassium for a variety of applications, including metal cleaning and fertilizer manufacturing. Instead, we accepted, as consistent with statutory and regulatory intent, EPA's idea that a material's "purpose" is informed by the material's initial use – i.e., its "initial deployment or application" -- which in this instance was cleaning metal parts. In other words, the touchstone for determining "the purpose for which KOH was produced" was its initial use as a metal parts cleaner.

iv. *Extent of the Initial Deployment or Application in Cases Involving Similar Possible "Purposes"*

In the instant case, purge solvents are initially deployed to remove automotive paint coatings from GM's paint manifolds and spray applicators, and then they later also remove molecules of those same paint coatings from downstream equipment and piping as purge mixture is conveyed through the assembly facilities. This case presents, as such, a different shading on the question addressed by *Howmet*, which dealt with possible "purposes" that were "substantially dissimilar" rather than similar.[21] The various "purposes" advanced by the parties here all involve the same activity of solubilizing and suspending automotive paint solids, but that same activity transpires in different locations within an assembly plant. Thus, the Region would argue, in the words of *Howmet*, that "the particular purpose for which purge solvent is initially deployed" is to clean paint manifolds and applicators, while GM would

[21] Moreover, in *Howmet*, activities conducted to achieve the substantially dissimilar "purposes" would transpire at distinct facilities (a metals shop, a fertilizer manufacturer) rather than at different locations within the same facility (an assembly plant).

argue that the initial deployment consists of cleaning paint manifolds/applicators *and* all the downstream equipment and piping in the purge solvent recovery system. The question becomes one of determining which activities are encompassed within the "initial deployment or application" of the material.

To resolve this puzzle, we turn to the evidentiary record to determine whether one position or another is supported by a preponderance of the evidence.[22] This analysis necessarily involves an examination of purge solvent's chemical formulation, but it is not to be interpreted, contrary to *Howmet*, as a Board finding that a manufacturer's intent in formulating a material dictates that material's "purpose." Rather, the examination of evidence pertaining to chemical formulation is aimed at determining the "stopping point" or "end" of the "initial deployment or application" of a material with "purposes" that are similar on a chemical level but different in location.

First, with respect to the cleaning of paint manifolds and applicators, we find, as the ALJ did, that the evidentiary record supports a factual ruling that GM's purge solvents are "expressly formulated to perform solvent functions in the manifolds and associated applicators * * *." Init. Dec. at 9 (citing 5 Tr. at 223-25, 230-31, 255-56 (Warren)); *see also*, *e.g.*, 5 Tr. at 195-99, 216, 222-29, 234 (Warren); 7 Tr. at 118-22 (Winkler); Joint Stips. ¶ 24, at 5. The evidentiary record also supports a factual finding that once purge solvent performs the cleaning of the manifolds and applicators, it becomes contaminated with paint pigments and resins and is not reused as-is to clean the manifolds and applicators again due to the fact that the paint solids in the purge mixture could cause defects in the color and quality of subsequent paint jobs.[23] *See*

---

[22] We cannot determine what comprises the extent or scope of a material's "initial deployment or application" simply by relying on the user's stated intention in this regard, as that intention may be affected by the user's litigation posture. We look instead for evidence that can establish the matter on an objective basis.

[23] The ALJ held that GM does not reuse purge solvent in purge mixture to clean paint manifolds and applicators because "the solvents are rendered so inferior and impure (continued...)

Init. Dec. at 14, 30, 32; *see also* 1 Tr. at 108-09 (Lamberth); 5 Tr. at 101-02 (Wozniak), 293 (Warren); Joint Stips. ¶ 32, at 8.

Second, with respect to the cleaning of downstream equipment and piping, we find, as the ALJ did, that the evidentiary record supports a factual ruling that "[t]he solvent contained in the purge mixture continues to perform solvent functions downstream of the paint applicators." Init. Dec. at 13 (citing 2 Tr. at 42, 45-49, 56 (Kendall); 1 Tr. at 280-81 (Kendall)); *see also*, *e.g.*, 5 Tr. at 76-84 (Wozniak), 229-35 (Warren); 6 Tr. at 41, 96 (Chaput); 7 Tr. at 120, 124-25, 135 (Winkler); 8 Tr. at 108 (Winkler); Joint Stips. ¶ 37, at 9. We question, as did the Region, another of the ALJ's factual findings, however; namely, that the evidentiary record supports a finding that GM's purge solvents are "*expressly formulated* to perform solvent functions * * * downstream of the applicators."[24] Init. Dec. at 9 (emphasis added); *accord id*. at 13. The ALJ references the testimony of GM's expert chemistry witness, Mr. Jonathan Warren, to support this finding. *See id*. at 9 (citing 5 Tr. at 223-25, 230-31, 255-56 (Warren)); *id*. at 13 (citing same pages of testimony plus 5 Tr. at 249-50 (Warren)). We find, however, that Mr. Warren's testimony cannot be stretched so far as to

---

[23](...continued)
that they cannot [again] perform the function of cleaning the manifolds and associated applicators." Init. Dec. at 30. The impurity of the purge solvent in purge mixture seems to be the critical factor, however, rather than the purportedly impaired functionality of the solvent. As we have noted elsewhere in this decision, purge mixture is comprised of approximately 80-90% solvent, and that solvent retains its ability to solubilize and suspend organic compounds. Indeed, GM's paint shop expert, Mr. John Wozniak, and its chemistry/purge solvent expert, Mr. Jonathan Warren, explicitly disagreed with the notion that purge solvent in purge mixture is necessarily too contaminated to be effective in cleaning the applicators again. *See* 5 Tr. at 101-02 (Wozniak), 293 (Warren). Instead, GM's experts appeared to take the position that complications posed by the presence of paint solids in the purge mixture (which would mar subsequent paint jobs of a different color) preclude the solvent's reuse, not a lack of sufficient functionality in the purportedly "inferior" solvent. *See id*. at 101-02 (Wozniak), 293 (Warren).

[24] The Region argued that GM failed to introduce any credible evidence that "its formulation of purge solvent included any special components that were intended to keep the lines downstream of the paint booths flowing efficiently." Resp. Br. at 33; *see id*. at 36-39, 40-41.

say that purge solvents as a class are specifically designed and formulated to clean downstream equipment and piping.

The gist of Mr. Warren's testimony is that purge solvent in purge mixture *continues* in the downstream lines to perform the solvent functions it was designed to perform in the paint manifolds/applicators, not that it is *expressly formulated* in every case to perform those functions downstream. *See*, *e.g.*, 5 Tr. at 229-35, 255-56 (Warren). In a noteworthy passage, Mr. Warren referenced GM's use of 2-K isocyanate clear coat paint at the Lake Orion facility and silane paint at the Moraine and Pontiac facilities (described in note 12, *supra*). He stated, in response to questioning by GM's counsel:

> Q. Okay. When you design a purge solvent to clean with [sic] silane paints [(which react when they come into contact with water by quickly hardening)], do you design it to prevent any of these silanes from gumming up the works downstream of the applicators, and if so, what function is being performed there?
>
> A. The function of the purge solvent downstream of the applicator for silanes is similar to that of a standard 1-K paint. We just have to be aware that that process has to have enough purge solvent flowing through the system in order to move that material along at a sufficient rate or sufficient transfer from the equipment from the purge pot to the tank so that any presence of water does not cause any further problems. *There is no specific purge design function for silane technology.* That is more the responsibility of the plant and how they design and tailor their process in order to handle that.
>
> * * * *
>
> Q. When you design a purge solvent for use, now just talking generally, when you design a purge solvent for uses in a vehicle assembly plant, do you design it to

> perform only the functions you've described in the manifold and the line and the applicators?
>
> A. No, it's also performs [sic] the functions downstream, the same functions it provides or performs upstream. *With the addition of those plants that are utilizing the 2-K isocyanate technology, then it has a specific design goal to clean downstream as well.*

5 Tr. at 248-50 (Warren) (emphasis added); *see id*. at 235-47 (Warren) (describing increasing magnitude of difficulty in cleaning 1-K, silane, and 2-K paint coatings).

At most, one can conclude from this and related testimony that purge solvent designed to clean Lake Orion's 2-K isocyanate paint has additional material added for downstream functionality (generally a short-chain alcohol compound, such as a methanol or an isopropanol, *see supra* note 12; *see also* OA Tr. at 11). However, GM advanced two complicated lines of argument involving its use of these special 2-K isocyanate and silane coatings, with the intention of proving through these arguments that purge solvents employed at the three facilities are all chemically formulated specifically to address downstream cleaning issues, separate and apart from manifold/applicator cleaning issues. Mr. Warren's testimony, as quoted above, reveals to the contrary that no changes in chemical formulation are made for the downstream uses of silane paints at Pontiac and Moraine. 5 Tr. at 249 (Warren); *accord* 8 Tr. at 109-110 (Kendall); OA Tr. at 11 (concession by GM that purge solvents at Pontiac and Moraine are *not* formulated differently for downstream use). In addition, other evidence indicates, and the ALJ agreed, that the alcohol compound added to the purge solvent designed to clean Lake Orion's 2-K isocyanate paint has completed its assigned task by the time the purge mixture exits the mini-purge pots. *See* Init. Dec. at 35-36; 8 Tr. at 86-92 (Kendall). Furthermore, upon questioning at oral argument, GM admitted that these two lines of argument were, in essence, "red herrings" that ultimately were irrelevant to the legal analysis of the point of generation of a hazardous waste in this case. *See* OA Tr. at 13.

Consequently, the testimony and evidence submitted regarding purge solvent purportedly being chemically formulated specifically to perform downstream cleaning of the same paint it cleaned upstream lacks force. As the Region argues, "[we are] hard pressed to understand how [GM's chemists] could have created a purge solvent that would *not* retain its solvent properties downstream." *Id*. at 78 (emphasis added); *see also* 5 Tr. at 235 (Warren) (when asked on direct examination whether he designs GM's purge solvent "to perform that generic cleaning function downstream of the applicators," Mr. Warren responded, "[i]t's the same function").

It appears to us that a preponderance of the evidence establishes that purge solvent continues to perform solubilization and suspension functions downstream. However, the evidence only supports the idea that purge solvent is produced and deployed specifically to clean manifolds and applicators as quickly, thoroughly, and efficiently as possible; it does not establish that any extra ingredients are intentionally included or the solvent formula deliberately modified in any way to achieve the downstream cleaning function. Rather, the purge solvent in purge mixture merely continues to perform the functions it did in the earlier cleaning steps, solubilizing and suspending paint solids, but simply in different locations where the paint solids have adhered or settled.

Notably, this cleaning action will remain available until the solvent reaches the point that it is so saturated it can no longer function, simply by virtue of its chemistry. However, the evidence adduced at the hearing, and our legal analysis, reveal that this continued functionality is separate, conceptually and factually, from the "initial deployment or application" of the purge solvent to clean the paint manifolds and applicators. That "initial deployment or application" ends when the purge solvent has been used to clean the manifolds and applicators and becomes too contaminated with paint solids to perform that specific upstream function again without reclamation. We conclude that in the case of a material whose potential "purposes" are quite similar, the scope or extent of the material's "initial deployment or application" extends to the first point at which the material ordinarily would be deemed "spent,"

which occurs when the material becomes too contaminated to be used any further to achieve its initial assignment.

However, as we discuss in the next section, the continuing functionality of purge solvent in purge mixture downstream of GM's paint applicators could fall, in certain circumstances, within the scope of the "purpose for which purge solvent was produced," despite the fact that the "initial deployment" of the purge solvent is complete. The question whether downstream uses are included within purge solvent's "purpose" will turn on whether those uses meet the criteria for "continued use" as outlined in the 1985 preamble.

v. *Continued Use Policy as Exception That Broadens "Purpose"*

EPA's 1986 guidance manual on RCRA recycling suggests that all uses of a material that are similar to the original use of the material fall within the bounds of the "purpose for which the material was produced." *See* 1986 Guidance Manual at 1-7 ("EPA interprets 'the purpose for which a material was produced' to include all uses of the product that are similar to the original use of the particular batch of material in question"). EPA's views are further discussed in subsequent Agency guidance.[25] For example, EPA's Office of Solid Waste wrote to the EPA regional offices in March 1994, attempting to clarify the definition of "spent material" by examining, among other things, the meaning of the "purpose" clause. The Agency explained that "a spent material 'can no longer serve the purpose for which it was produced' * * * when the material is no longer serving its original purpose and is being reprocessed instead." RX 110, at 2 (Memorandum from Michael

[25] As explained in Part II.A.1 above, EPA receives requests from the regulated community and others for interpretive guidance on how to apply the RCRA regulations in a variety of specific factual scenarios. The Agency issues regulatory guidance in response to these requests, in the form of applicability determinations and other opinions. Many such documents are available for public review on the Internet at http://www.epa.gov/epaoswer/hazwaste/dsw/ regint.htm, http://www.epa.gov/rcraonline, and related sites. They can also be found on Westlaw in the "fenv-admin" and "fenv-all" databases.

Shapiro, Director, Office of Solid Waste, U.S. EPA, to Hazardous Waste Division Directors, EPA Regions I-X, *Definition of Spent Material*, OSWER Directive No. 9441.1994(07), at 2 (Mar. 24, 1993)) [hereinafter 1993 OSWER Memo]; *see also*, *e.g.*, Letter from Matthew A. Straus, Chief, Waste Characterization Branch, Office of Solid Waste & Emergency Response, U.S. EPA, to Dr. Peter Russell, President, Russell Resources Inc., OSWER Directive No. 9441.1987(39), at 1 (May 20, 1987) (advising that pickle liquor is "spent" at the point it exits the pickling line baths and is sent for regeneration, because it is regenerated prior to any reuse).

Similarly, in an applicability determination for Ashland Chemical Company, the Agency reiterated its view that a material will retain its characterization as a product if the material is reused in a manner consistent with its original use without prior reclamation. *See* CX 21, at 1-2 (Letter from David Bussard, Director, Characterization & Assessment Division, Office of Solid Waste & Emergency Response, U.S. EPA, to Kristina M. Woods, Ashland Chemical Co., OSWER Directive No. 9441.1994(24), at 1-2 (Aug. 30, 1994)) [hereinafter Ashland Chem. App. Det.] (explaining that the solvent in EPA's 1985 preamble example is "spent" in terms of its use as a circuit board cleaner but is not a RCRA "spent material" because a legitimate continuing use for metals degreasing exists; implying that sale and subsequent reuse of "spent" high-purity chemicals would be allowed under Agency's continued use policy as long as such chemicals are reused in a manner consistent with their original use and are not reclaimed or reprocessed prior to reuse); *see also* Letter from David Bussard, Director, Characterization & Assessment Division, Office of Solid Waste & Emergency Response, U.S. EPA, to Deborah S. Green, Applied Environmental Sciences, Inc., OSWER Directive No. 9441.1994(25), at 1-2 (Sept. 28, 1994) [hereinafter Applied Envtl. App. Det.] (noting that used mercury relays/switches are "spent" when taken out of service unless they are sent for further reuse as relays/switches, in which case they are not "spent" but are continuing to be used for their "original purpose"; once the mercury relays/switches have been used, the generator has the burden of demonstrating that the material is not "spent," citing 40 C.F.R. § 261.2(f)); Letter from Don

Clay, Assistant Administrator, U.S. EPA, to Nathan M. Burton, Lee Solder Inc., OSWER Directive No. 9441.1992(06), at 1 & n.1 (Mar. 26, 1992) [hereinafter Lee Solder App. Det.] (suggesting that used, slightly contaminated solder is "spent" unless it is sold to and directly reused by another user, with no prior processing, in which case it is not "spent" during the reuse); Memorandum from Michael Petruska, Acting Chief, Waste Characterization Branch, Office of Solid Waste & Emergency Response, U.S. EPA, to Docket, *Status of Used Refrigerants Under 40 CFR 261.2*, OSWER Directive No. 9441.1990(28), at 1-2 (Oct. 18, 1990) [hereinafter Used Refrigerants Memo] (indicating that used refrigerants removed from refrigeration equipment are "spent" unless they are directly reused, without any filtration or other processing, as refrigerants, in which case they are not "spent" during the reuse).

We believe the most straightforward way to read the relevant regulatory terms and harmonize the Agency guidance is as follows.[26] Under ordinary circumstances, the initial deployment or application of a batch of material will serve as the touchstone for determining "the purpose for which [that material] was produced," per *Howmet*, and, at the end of the initial deployment or application, the material will be considered "spent" under 40 C.F.R. § 261.1(c)(1).[27] However, in

---

[26] The federal courts have recognized and affirmed regulatory agencies' ability to put further interpretive gloss on regulatory terms through adjudication. *See*, *e.g.*, *Pepperell Assocs. v. EPA*, 246 F.3d 15, 22 (1st Cir. 2001) ("[t]o the extent that the [Environmental Appeal Board's] decision reflects a gloss on its interpretation of the governing EPA regulations, a reviewing court must also afford those policy judgments substantial deference, deferring to them unless they are arbitrary, capricious, or otherwise 'plainly' impermissible"); *Beazer E., Inc. v. EPA*, 963 F.2d 603, 608-10 (3rd Cir. 1992) (holding that EPA may legitimately choose to give meaning to an ambiguous regulation through adjudication rather than via rulemaking and, in such a circumstance, the Agency's interpretation will receive deference if it is reasonably supported by the regulatory context); *see also S. Ute Indian Tribe v. Amoco Prod. Co.*, 119 F.3d 816, 832 (10th Cir. 1997) (recognizing principle that agencies may establish "binding policy" through rulemaking procedures or through "adjudications that create binding precedents") (quotation omitted), *rev'd on other grounds*, 526 U.S. 865 (1999).

[27] The generator is obligated at the end of the initial deployment or application to determine whether the material is a solid or hazardous waste at that point. *See* (continued...)

keeping with guidance in EPA's 1985 preamble, the material might not yet be appropriately categorized as "spent." Under the preamble, as explained below, in the case where there is a similar/consistent and legitimate continuing use of a material, the material would not be "spent" until the continuing use is completed. On the other hand, in the case where there are no continuing uses and the material is slated for reclamation or reprocessing following its initial deployment or application, it would be considered "spent."

In the 1985 preamble, EPA created an exception to the ordinary definition of "purpose," which it has applied in subsequent regulatory guidance documents. If the conditions of the exception apply, the exception broadens "the purpose for which [a material] was produced" to include not just the initial deployment or application but also certain continued uses of the material.[28] This continued use exception is comprised of two primary conditions. Condition number one provides that the continued use of the material must be *similar to* or *consistent with* the initial use. *See*, *e.g.*, Ashland Chem. App. Det. at 1 (a material is not "spent" if it is "reused in a manner *consistent with* its original use"); 1986 Guidance Manual at 1-7; 1985 Preamble at 624. Condition number two provides (as we will explain in more detail in Part II.A.3 below) that the continued use of the material must be a *legitimate* further use of the previously used material rather than an improper or disguised

---

[27](...continued)
40 C.F.R. §§ 260.10, 262.11.

[28] In holding that the continued use policy acts as an exception that "broadens" the meaning of "the purpose for which [a material] was produced," we do not rule, implicitly or otherwise, that EPA intended the "purpose" clause to have a multiple character. Instead, our reasoning gives meaning to the Agency's 1985 redefinition of "spent material," in which it replaced the sometimes overly narrowly construed notion of a material's "original purpose" with the broader idea of "the purpose for which [a material] was produced" in an effort to ensure that materials still "fit for use" could continue to be used within the scope of their "purpose." As explained in this section and in Part II.A.3 below, the Agency placed a number of conditions on continued use that prevent a material's "purpose" from being stretched beyond its singular character to encompass wildly divergent multiple purposes.

means of disposing of a waste material.[29] *See*, *e.g.*, RX 13, at 1-2 (Letter from David Bussard, Waste Identification Division, Office of Solid Waste, U.S. EPA, to Catherine A. McCord, Safety-Kleen 1-2 (Aug. 21, 1998)) [hereinafter Safety-Kleen App. Det.]; Ashland Chem. App. Det. at 1.

Put another way, the exception acts as a "but for" test – i.e., *but for* a continued use of a batch of material that is *similar to* or *consistent with* the initial deployment or application of that material, and is also a *legitimate* use of the material, the material would be considered "spent" under the RCRA regulations because it is no longer being used for "the purpose for which it was produced." *See* Applied Envtl. App. Det. at 2 ("If the generator has a realistic expectation that [materials are] destined for further [similar] use * * *, [and] such arrangements have been made for further use, then the materials are not spent. It is important to note that it is the actual management of the material rather than the potential of the material for a particular end use that determines whether or not it is a waste"). However, a batch of material is not "spent" until all continued uses meeting the conditions of the Agency policy are completed. *See id*. at 1-2; Lee Solder App. Det. at 1 & n.1; Used Refrigerant Memo at 1-2. The burdens of pleading and proving the existence of a qualifying continued use would rest upon the party attempting to invoke the exception to the otherwise applicable regulatory analysis. *See infra* Part II.A.3.c (citing authorities to support proposition that respondent must carry burden of proof of continued use).

---

[29] In *Howmet*, we found that KOH was initially deployed to clean metal parts and that further use of the used KOH as a fertilizer ingredient was "substantially dissimilar" from its initial deployment. *Howmet*, slip op. at 39, 13 E.A.D. at ___. It was unnecessary in such circumstances to reach the question of the "legitimacy" of the further use in analyzing the material's "purpose" and the conditions under which further use might render the material "spent." This case, on the contrary, involves very similar uses of purge solvent, *see infra* note 49, and thus our analysis focuses on the "legitimacy" of the purported continued uses.

vi. *Conclusion Regarding "Purpose"*

In conclusion, we hold on the basis of the foregoing analysis that the initial deployment or application that serves as the touchstone of "the purpose for which [purge solvent] was produced" is *to solubilize and suspend specific automotive paints in GM's paint manifolds and spray applicators*. At the point it exits the spray applicators (or the mini-purge pots in Lake Orion's case), purge solvent would be a material that "has been used and as a result of contamination [with paint solids] can no longer serve the purpose for which it was produced without processing" – i.e., it is "spent" under the regulations – *unless* similar/consistent and legitimate *continuing uses* of purge solvent are undertaken that, by virtue of their existence, broaden "the purpose for which [purge solvent] was produced." If such qualifying continuing uses exist, purge solvent in purge mixture would not be considered "spent" until those uses are completed. We turn to the question of continuing uses in the next section of this decision.

3. *The "Continuing Use of a Solvent" Policy*

As discussed above, the Agency has taken the position over the years that it is appropriate and consistent with congressional intent to allow certain continued, unregulated uses of partially contaminated materials (such as solvents) that can serve, in essence, as effective substitutes for commercial products that otherwise would have to be employed to achieve the same ends. And as just noted, under EPA's regulatory scheme, analysis of the point of generation of a solid waste, which occurs at the point a material is "spent," must take into account situations where there are similar/consistent and legitimate continuing uses of the material. *See*, *e.g.*, 1985 Preamble at 624; Ashland Chem. App. Det. at 1. Following the model established in the foregoing section on "purpose," we begin in the pages below with a summary of the ALJ's analysis of continuing use in the context of this case. We then summarize the parties' arguments on appeal of the ALJ's ruling and conclude with our own analysis of the issue, in which we remand portions of the continued use evaluation to the ALJ for reconsideration, clarification, and further fact-finding.

a. *The ALJ's Analysis*

The ALJ began her analysis of EPA's continuing use policy by noting that she had no obligation to follow it, as the policy consists merely of Agency interpretation of the scope of the regulatory term "spent material" rather than of binding statutory or regulatory language. *See* Init. Dec. at 25, 28. She nonetheless considered the policy because GM raised it in defense of this enforcement action. The ALJ identified a series of four applicability determinations issued by EPA from 1997 to 2001 that addressed various aspects of ongoing solvent use at automobile paint shops such as GM's. In the first document, commonly referred to as the "Cotsworth Letter," EPA's Office of Solid Waste responded to questions regarding the regulatory status of indoor piping and flow equalization tanks used to convey purge solvents from spray painting booths to exterior accumulation tanks at automobile assembly plants. An industry attorney had inquired as to whether the purge solvents in the pipes and tanks would qualify for the "manufacturing process unit" exemption from RCRA regulation under 40 C.F.R. § 261.4(c), and the Agency responded that it would not, on the ground that the solvents were a "waste" upon exiting the spray painting units.[30] CX 16, at 1-2 (Letter

---

[30] The Agency explained the following:

> As we understand it, your client uses solvents to clean automated spray painting guns when changing paint color. * * * During cleaning used solvent is collected in funnels and then piped to a "flow equalization" tank located near the booth, and then finally piped [through the plant] to an outdoor above-ground accumulation tank [that] is equipped with secondary containment and is managed pursuant to the requirements at 40 CFR 262.34. * * *
>
> Based on the information provided in your letter, the Agency believes that the used solvent is a waste once it leaves the spray painting unit, and that the equalization tank and associated piping are subject to hazardous waste regulatory requirements. Since the used solvent is physically removed (i.e., piped) from the spray painting unit, and since it will no longer be used to clean spray paint guns once removed, the solvent is considered a waste when it leaves the unit. All tank system components (the equalization tank, outside

(continued...)

from Elizabeth Cotsworth, Acting Director, Office of Solid Waste, U.S. EPA, to Jill A. Weller, Thompson, Hine & Flory LLP 1-2 (July 29, 1997)) [hereinafter Cotsworth Letter], cited in Init. Dec. at 28 n.24. In the second document, EPA's Office of Solid Waste issued a RCRA applicability determination for painting operations at a Ford Motor Company assembly plant in Avon Lake, Ohio. In that document, commonly referred to as the "Sasseville Memo," the Agency expressed its view that purge solvents at Ford's plant are wastes after they are used to clean the paint applicators if they serve only to keep contaminants in suspension and do not dissolve "additional" contaminants while being conveyed to the storage tanks.[31] CX 17, at 2 (Memorandum from Sonya

---

[30](...continued)
accumulation tank, and all associated piping) are part of the waste storage tank system and are subject to the relevant generator accumulation requirements including those for secondary containment unless otherwise exempted for reasons described at 40 CFR 265.193(f), (g), and (h). The exemption at 261.4(c) applies where waste is generated and then contained for some period of time within process units (typically tank-like units), such as sludge that accumulates on the bottom of raw material product tanks. However, the system you have described is not part of the production system, but serves solely to manage wastes.

CX 16, at 1-2.

[31] The Agency stated:

> [S]olvents are used to clean paint from the spray guns at the time of paint changes. After exiting the spray guns, the solvent and paint are transported by pipe and pumps to a hazardous waste storage tank for ultimate transfer to an off-site facility. * * *
>
> As we understand [it], in the Ford painting operation, the solvent/paint mixture may first be sent to a purge pot [that] is used primarily for flow equalization. The mixture may be recirculated to keep the paint in suspension to aid in the discharge to the storage tank. Later, it is piped, either by gravity or pump, to the hazardous waste storage tank. The industry asserts that the solvent/paint mixture leaving the spray guns is not a hazardous waste because the solvent is being used to keep the mixture flowing.

(continued...)

Sasseville, Acting Chief, Permits Branch, Office of Solid Waste, U.S. EPA, to Joseph M. Boyle, EPA Region 5, at 2 (June 2, 2000)) [hereinafter Sasseville Memo], quoted in Init. Dec. at 28-29. In the third and fourth documents, EPA Region 5 informed the States of Michigan and Ohio, respectively, of EPA Headquarters' view, set forth in the Sasseville Memo, that purge solvents are wastes if they do not dissolve "additional" contaminants after cleaning paint applicators. CX 18, at 1 (Letter from Robert Springer, Division Director, Waste, Pesticides & Toxics Division, EPA Region 5, to Arthur R. Nash, Jr., Deputy Director, Michigan Department of Environmental Quality 1 (Mar. 28, 2001)), cited in Init. Dec. at 29; CX 95, at 1 (Letter from Robert Springer, Division Director, Waste, Pesticides & Toxics Division, EPA Region 5, to Mike Savage, Chief, Division of Hazardous Waste Management, Ohio Environmental Protection Agency 1 (Mar. 28, 2001)), cited in Init. Dec. at 29.

The ALJ observed that despite the existence of these four seemingly relevant Agency documents, GM argued on the basis of two other sources that GM's downstream uses of purge solvent are legitimate continuing uses. These sources consisted of EPA's 1985 preamble laying out the continuing use policy and a subsequent applicability determination issued in 1998 to Safety-Kleen Corporation applying the policy. *See* Init. Dec. at 22-23, 29, 36. With respect to the Safety-Kleen example, the ALJ explained that that company had contacted EPA

---

[31](...continued)

> After the solvent and paint mixture is used to clean the spray gun, it is a waste if at that point it is no longer part of the manufacturing process. The purpose of the solvent is to remove the waste paint, clean the spray gun, and allow the use of new colors. If the solvent serves thereafter only to keep contaminants in suspension until they reach the hazardous waste storage tank, and if the solvent does not dissolve additional constituents, it is a waste. If this type of waste management is occurring, the solvent/paint mixture is a hazardous waste, and any pipes, valves, pumps, etc. that are part of the discharge system following the paint spray guns are subject to RCRA Subtitle C regulations, including subpart BB.

CX 17, at 2.

seeking written confirmation of the regulatory status of solvent it leased to a diverse array of customers for metal parts and equipment washing and other purposes. *Id*. at 29; *see* 6 Tr. at 257-60 (Ross); RX 32 (The Safety-Kleen Continued Use Program™ (May 8, 2003)). Safety-Kleen intended to wash storage drums at its facility with its leased solvent upon return of that solvent from its clients – i.e., when the solvent was in used and partially contaminated form – pursuant to EPA's continuing use policy. EPA confirmed that Safety-Kleen's drum-washing activities could go forward as planned, *without* RCRA subtitle C regulation, as follows:

> The Agency has previously stated that when a used solvent is employed for another solvent use, this continued use indicates that the solvent remains a product. The used solvent in this case is a material continuing to be used as a solvent, the purpose for which it is intended, rather than a spent material being reused. Consequently, the used solvent to be employed for drum washing would not be considered a solid waste and would not be subject to the Subtitle C hazardous waste regulations when generated, transported, or used. 50 Fed. Reg. 614, 624 (1985). Accordingly, used parts washing solvents that are collected and consolidated by Safety-Kleen and then used for drum washing without first being reclaimed would not be a RCRA solid waste.

Safety-Kleen App. Det. at 1-2.

In reviewing the Safety-Kleen example, the ALJ emphasized EPA's recognition therein that the continuing use policy could be employed inappropriately, in certain circumstances, to disguise waste handling practices as ongoing production activities. Init. Dec. at 29. The ALJ noted that the Agency attempted to guard against such contingencies by requiring continuing uses to be "legitimate," entailing fulfillment of three conditions, as follows:

> [T]he Agency is aware of the potential for the "continued use" policy to be abused, and thus, notes that the continued use must be *legitimate* for the used solvents to be excluded from regulation as a solid waste. The Agency would consider the continued use of the used solvents for drum washing to be legitimate in situations in which: 1) the used solvents are *effective* for the drum-washing operation, especially if the used solvents substitute for solvents that would otherwise have to be purchased (if the used solvents would not be an effective washing agent for the drums, using the used solvents in lieu of other effective drum-washing agents would not be considered legitimate), 2) the used solvents are used only for washing drums *that actually need it* (if the used solvents are used as drum-washing agent[s] when the drums do not need washing, using the used solvents would not be considered legitimate), and 3) the used solvents are *not used in excess of what would normally be required* to wash drums (if the used solvents are being used in excess of the amount of solvents needed for the drum-washing operation, e.g., more than would be necessary to wash the drums effectively, using the used solvents would not be considered legitimate).

Safety-Kleen App. Det. at 2 (emphasis added), quoted in Init. Dec. at 29.

Applying these factors to GM's assembly plants, the ALJ found that purge solvent in purge mixture is *not* effective for cleaning downstream piping and equipment. Init. Dec. at 32-34, 37. Instead, the ALJ determined that purge mixture moves downstream from the paint applicators to the purge mixture storage tanks only because GM continuously agitates, pumps, and applies pressure to the purge mixture and also takes steps to ensure the presence of adequate volumes of purge mixture in the downstream piping (via frequent purging at Pontiac and via recirculation at Moraine and Lake Orion) to prevent clogging of lines and equipment that otherwise would occur when paint solids settle out

of the purge mixture solution. *Id*. at 32-33. The ALJ did not appear to attribute any of this downstream movement to the solubilization and suspension functions provided by the solvent in the purge mixture. *See*, *e.g.*, *id*. at 32 (stating that "what accomplishes the movement of the purge mixture through the purge mixture conveyance system is *not* its solvent properties, but rather the energy generated by agitation and pumping[,] * * * recirculation * * * [and] volume") (emphasis added). As a consequence, the ALJ held that GM's downstream use of purge solvent "fails the first requirement for 'legitimate' continued use under the 1998 Safety-Kleen determination: that the used solvent is 'effective.'" *Id*. at 37.

The ALJ held further that EPA's Sasseville Memo and other automobile painting-related applicability determinations were "far more on point" in relation to GM's situation than the 1985 preamble and 1998 Safety-Kleen determination upon which GM relied, and, indeed, were dispositive in this case. Init. Dec. at 36-37. In so finding, the ALJ did not explore the rationale behind the Agency's interpretation of its regulations in this regard but merely accepted the premise, as the Sasseville Memo stated, that if a solvent does not dissolve "additional" constituents and serves only to keep contaminants in suspension until they reach a storage tank, then the solvent is a spent material and a solid/hazardous waste. *See id*. at 28-29, 36-40. The ALJ construed the 1985 preamble example as being consistent with the notion that a continuing use must solubilize/suspend "additional" constituents to be legitimate, observing that, "[p]resumably, the contaminants that were to be cleaned off of circuit boards [in the preamble example] would not be the same as the contaminants that are cleaned during metal degreasing." *Id*. at 37. Similarly, the ALJ treated the Safety-Kleen example as consistent with this interpretation, noting with favor the Region's position that the "logical assumption is that the drums at Safety-Kleen contain new constituents that the solvent is dissolving for the first time * * * and that this is clearly a new and different use" that EPA authorized as a legitimate continuing use. *See id*. at 24 (citing 6 Tr. at 209, 264 (Ross)), 37. The ALJ contrasted Safety-Kleen's situation with GM's, contending that "GM is not picking up additional contaminants," *id*. at 37, thereby indicating the ALJ's acceptance of the

idea that Safety-Kleen *is*, as a matter of fact, solubilizing additional contaminants in the drum washing activities at its facilities.

The ALJ concluded that purge solvent in purge mixture is not "effective" in cleaning downstream pipes and equipment and therefore the downstream uses do not qualify as "legitimate" continuing uses of purge solvent. *Id*. In this regard, the ALJ acknowledged that purge solvent in purge mixture retains "some residual cleaning power" but, because "the contaminated purge solvent mixture * * * clog[s] the machinery" and is generally a "nuisance" to the company, it is a waste that cannot be exempted from RCRA regulation under the continuing use policy while it travels from the applicators to the storage tanks. *Id*. According to the ALJ, "[t]he continued uses previously approved by the EPA did not provide such a broad exemption." *Id*.

b. *The Parties' Arguments on Appeal*

i. *GM's Arguments*

On appeal of the Initial Decision, GM argues on three separate grounds that the ALJ erred in holding that downstream uses of purge solvent do not qualify as legitimate continuing uses under EPA's policy. First, GM contends that the ALJ erred in ruling that force is solely responsible for moving purge mixture downstream and that solvent plays no necessary role in achieving that end. *See* App. Br. at 30-34. Second, GM contends that the ALJ erred in ruling that GM's use of purge solvent for downstream cleaning activities differs in kind from the continued uses explicitly authorized by EPA in the 1985 preamble and 1998 Safety-Kleen applicability determination. *See id*. at 38-46. Third, GM contends that the ALJ erred in ruling on the basis of the Sasseville Memo and related opinions that purge solvent must dissolve "additional" constituents, meaning "new" or "different" constituents rather than simply "more" of the same constituents, in its continuing use. *See id*. at 46-52.

With respect to the first idea, that force alone, and not solvent activity, is responsible for conveying purge mixture downstream, GM

points out that the undisputed evidence in the record, as well as the joint stipulations, clearly establish that purge solvent in purge mixture performs solubilization and suspension functions downstream of the paint applicators. *Id*. at 31 (citing Joint Stips. ¶¶ 27, 37, at 7, 9; 5 Tr. at 223-25, 229-35 (Warren); 2 Tr. at 45-48 (Kendall)). GM does not dispute that force is helpful and indeed necessary to achieve effective and thorough cleaning of its painting equipment and pipelines, explaining, as one example, that in the paint manifolds, the company employs pressurized "air chops" in conjunction with purge solvent to ensure solvent is spread over all surfaces of the equipment needing cleaning. *Id*. at 32. Similarly, in the downstream piping and equipment, GM uses force provided by pumps, gravity, agitators, and recirculation loops to act as "elbow grease," in conjunction with the solvent in purge mixture, to minimize opportunities for settling of paint solids and to ensure solvent reaches any places where paint solids have settled out of solution. *Id*. at 32-33. GM asserts, however, that while force is needed to transport purge mixture, force cannot convey purge mixture to the storage tanks by itself; according to GM's expert witnesses, no amount of pumping, agitation, or recirculation would keep GM's equipment clean and flowing if solvent were not present in the purge mixture to solubilize paint polymers and suspend paint pigments. *Id*. at 33-34 (citing 5 Tr. at 103 (Wozniak); 7 Tr. at 158-59 (Winkler)). GM therefore contends that the ALJ committed an error of fact by holding to the contrary, i.e., that force is solely responsible for the downstream movement of purge mixture. *See id*. at 31, 34.

With respect to the second idea, that GM's ongoing uses of purge solvent differ in important ways from other, Agency-sanctioned continued uses, GM argues that Region 5 and the ALJ have applied the Agency's continuing use policy in an arbitrary and capricious fashion. GM contends that the 1985 preamble is the "best evidence" of EPA's intent in adopting its definition of "spent material," and that the preamble clearly sets forth the idea that a solvent is not "spent" after one use if it can be used "as is," i.e., in partially contaminated form, for another solvent purpose. App. Br. at 40. GM points out that it is undisputed that purge solvent in purge mixture continues to perform solvent functions downstream of the paint applicators, and that these

functions are not "unintended, unnecessary, [or] frivolous"; rather, they are necessary to ensure GM's fast-paced painting operations can continue running without interruptions that otherwise might be caused by clogged purge pots or pipelines. *Id*. at 41. GM asserts that purge mixture is comprised of 80 to 90% solvent and only 10 to 20% paint solids and thus that the solvent retains most of its ability to dissolve, dilute, and suspend solids in an effective and efficient manner. *Id*. at 42; *see id*. at 5-6 n.2. In light of this fact, and given the significance of the company's need to keep its downstream lines flowing freely, GM perceives no meaningful difference between its downstream use of purge solvent and the continuing use EPA found in the 1985 preamble to be acceptable and consistent with the goals of RCRA. *Id*. at 41-42.

GM asserts further that EPA's continued use policy is "the foundation of continued use programs all over the country, including Safety-Kleen's Continued-Use Program[™] or 'CUP.'" *Id*. at 42. In that program, GM observes, Safety-Kleen supplies solvents to customers for a wide variety of cleaning purposes and then collects and transports the used and partially contaminated solvents back to its facilities where they are used, as is, to clean drums. GM points out that EPA explicitly sanctioned Safety-Kleen's CUP as the continued use of solvents for further solvent purposes, stating, in so doing, that the used solvents remain products and would not be considered by the Agency to be solid wastes. *Id*. at 43 (citing Safety-Kleen App. Det. at 1). GM argues that "[j]ust like Safety-Kleen's solvents, GM's [p]urge [s]olvent 'is a material continuing to be used as a solvent.' It is therefore not a waste; [it is] a product." *Id*. To support this point, GM references the testimony of Safety-Kleen's vice president, who asserted that GM's continued use of purge solvent is "an even 'purer' application of the continued use doctrine than Safety-Kleen's EPA-approved [CUP]."[32] *Id*. (citing 6 Tr.

---

[32] Billy Ray Ross, Jr., Safety-Kleen's vice president of environmental compliance, testified as follows:

> Q. Based upon your review and understanding of the facts, how would you compare GM's continued use of its purge solvent with the continued use of solvent in your continued use program?

(continued...)

at 233-34). GM also cites two other "spent material" analyses published by EPA in 1994, one a general analysis and the other an applicability determination conducted for Ashland Chemical Company, noting that both profess the policy that used and partially contaminated materials being put "as is" to further direct use would be considered products excluded from jurisdiction under RCRA rather than wastes. *Id*. at 43-45 (citing RX 110, at 2 (1993 OSWER Memo at 2); RX 113, at 1 (Ashland Chem. App. Det. at 1)). GM concludes by arguing that "EPA's position in this case inexplicably and shockingly ignores its consistent, long-standing 'continued use of solvent doctrine.' EPA cannot allow 'continued use' in other contexts and refuse to allow GM to use the same doctrine, right in its own facilities, downstream of the applicators. EPA Region 5's position here is arbitrary, capricious, and wrong; the ALJ erred in deciding otherwise." *Id*. at 45.

With respect to the third idea, that purge solvent in purge mixture must dissolve "new" or "different" constituents downstream to qualify as a legitimate continued use, GM argues that the ALJ erred both

---

[32](...continued)

> A. Well, I think it's actually a cleaner or more precise fitting for the continued use doctrine under the preamble language than even Safety-Kleen's program is. You've got the same solvent being used for multiple purposes which that solvent was designed for at the same location by the same company. And it's just – it seems a much more precise fit into the definition of continued use than really what we do at 13,500 different customer locations across the country, where we might take it from, you know, a boat manufacturer that's washing off hydraulic oil into it and then wash our drums or some other type application. So I would say it's a much more fitting definition of continued use and by far fits within the example and the guidance that was prepared in that preamble. That went as far as saying from washing a printed circuit board to now degreasing a part. Well, this never leaves a paint loop and the solvent was designed explicitly, not just to circuit boards to degreasing something, but it was a paint-type solvent used in paint operations within a plant, within a single closed-loop system. * * * [I]t's still a product in service for its original solvent purposes. * * *
>
> 6 Tr. at 233-34.

as a matter of fact and of law in analyzing this issue. GM argues that the Sasseville Memo upon which the ALJ's finding is primarily based is not on point here, that neither the regulations nor the Agency's continued use policy require dissolution of "additional" contaminants as a condition of qualifying as legitimate continued use, and that even if such a requirement did exist, GM meets it.

To begin, GM contends that the Sasseville Memo, its progeny, and the Cotsworth Letter are irrelevant to the question whether purge solvent is "spent" in this case. *Id*. at 48. GM notes that in responding to requests for interpretations of the RCRA regulations, EPA takes the facts presented in such requests at face value, and that in these particular instances, the Agency was given to believe that the sole purpose for which purge solvent is produced is to clean paint applicators. *Id*. In GM's view, the ALJ erred by failing to distinguish these examples from the instant case, because the record in this case contains undisputed evidence that purge solvent performs necessary solubilization and suspension functions downstream as well as upstream. Thus, according to GM, the Sasseville and related opinions are of no utility on these facts and must be distinguished. *Id*.

GM also argues that in reaching the conclusion she did, the ALJ ignored testimony by Safety-Kleen's vice president that in some cases at its facility, used solvent is removed from a container and subsequently used to clean residue from that very same container. *Id*. at 50 (citing 6 Tr. at 217 (Ross)). That solvent would not be dissolving any "new" or "different" constituents, claims GM; instead, it would simply be dissolving "more" of the same kinds of constituents it dissolved earlier. *Id*. In GM's view, solubilization of "more" contaminants fulfills the Sasseville Memo's disputed requirement that "additional" constituents be dissolved. *Id*. at 51. GM contends that in light of this, and also considering that the Safety-Kleen applicability determination places no explicit conditions on what contaminants can be targeted by continuing uses of solvents, the ALJ erred in holding that the Safety-Kleen example supports her conclusion that continuing use must involve "new" and "different" constituents. *Id*. at 50. Finally, even if the Sasseville Memo provision regarding "additional" contaminants were correct, argues GM,

the record in this case shows that GM's solvent does in fact solubilize and suspend additional, meaning "more of the same," contaminants downstream of the paint applicators. *Id*. at 51-52. According to GM, the ALJ erred on both factual and legal grounds by holding that such cleaning activity is insufficient to qualify as a legitimate continuing use.

ii. *The Region's Arguments*

In response to GM's first argument, i.e., that the ALJ erred in holding that force alone, unaided by solvent activity, causes purge mixture to travel downstream to the storage tanks, Region 5 acknowledges that solvent in purge mixture does indeed retain some of its solvent properties during conveyance downstream. Resp. Br. at 41, 53. However, the Region believes the evidence in the record establishes that GM does not actually "use" purge solvent downstream to solubilize and suspend paint solids that settle out of solution in purge pots and piping. The Region points to testimony and evidence that GM supplies pressure, agitation, recirculation, and volume control to ensure uninterrupted downstream conveyance of purge mixture. *See id*. at 50-58 (citing 1 Tr. at 281 (Kendall); 2 Tr. at 66-67 (Kendall), 142-43 (Benson); 4 Tr. at 111-12, 212, 218-20, 222, 236, 240, 243-44 (Blair); 5 Tr. at 48, 57, 75-76, 81, 129-30 (Wozniak); 6 Tr. at 18, 42-44, 47-49, 56-57, 60, 64-65, 70-71, 121-22, 141, 146, 157-58, 176 (Chaput); 7 Tr. at 153-54, 157-58, 302-04, 307, 311 (Winkler); CX 23 ¶¶ 21-23, 27 (Second Declaration of Barrett E. Benson)). According to the Region, this evidence proves "it is not the solvent properties of the [p]urge [m]ixture that [] pick up 'soft-settled' [paint] particles, but rather the force of the moving liquid generated by the pumps and recirculation loops used in the [p]urge [m]ixture conveyance system." *Id*. at 50. At oral argument, the Region underscored this point, asserting that resolubilization and resuspension of paint residues is not, in its view, a cleaning function, and offering two rebuttal references to argue that purge solvent does not clean GM's downstream equipment and piping.[33] OA Tr. at 60-61 (citing 5 Tr. at 229-30 (Warren); 2 Tr. at 48-49 (Kendall)). In so arguing, the

[33] For a discussion of these two rebuttal references, see *infra* note 35 and accompanying text.

Region does not address GM's assertion, based on expert testimony, that no amount of pressure and energy could move the purge mixture downstream if purge solvent were not present in purge mixture to solubilize and suspend paint solids. Instead, the Region insists that "while [the solvent properties of purge mixture] help make the waste amenable to being * * * conveyed, [they] do not actually perform any function on the conveyance system" and thus are not being "used." Resp. Br. at 53; *accord id.* at 50.

With respect to GM's second argument, i.e., that the ALJ acted arbitrarily and capriciously in holding that GM's downstream use of purge solvent differs in substantial ways from other, Agency-sanctioned continued uses, the Region reiterates its view that GM does not "use" purge solvent downstream. The Region points out that the functions of purge solvent "are limited to keeping paint polymers or resins in solution and keeping paint pigment particles in suspension," and, therefore, the fact that purge solvent continues to solubilize paint polymers and suspend paint pigments downstream is not a "use" of the solvent but rather "simply a state of being of the solvent." Resp. Br. at 30 n.31; *see also id.* at 5, 35, 42, 53 ("[t]he solvent portion of the [p]urge [m]ixture is not being used; rather, the system designed to move the [p]urge [m]ixture merely takes advantage of the waste's residual solvent properties, properties [that] exist in all waste solvent"); OA Tr. at 69, 77. In this light, the Region labels GM's attempt to compare its situation to that of Safety-Kleen's "particularly specious." Resp. Br. at 47. The Region explains in this regard that Safety-Kleen empties used solvents into 200-gallon tanks that feed a drum washer, which uses high-pressure jets to scour the drums clean with the used solvents. *Id.* Safety-Kleen's authorized continued use does not consist, the Region contends, of alleged "cleaning" of the drums while they are in transit from Safety-Kleen's customers to its own facilities, "even though the likelihood is that the solvents continue to resolubilize and resuspend the contaminants they contain while en route." *Id.* Instead, the continued use occurs when Safety-Kleen empties the used solvent carried in the drums into its large tanks and then uses that solvent to clean the drums. *Id.* The Region alleges that what GM does "is more akin to collecting the used, contaminated solvent into a clean drum, and eventually disposing of the

solvent waste that is contained in the drum," which, in its view, is a very different activity than what Safety-Kleen is authorized to do. *Id*. at 48. Thus, the Region argues that the ALJ did not act arbitrarily or capriciously or err in holding that the continuing use policy is inapplicable to GM's downstream uses.

In response to GM's third argument, i.e., that the ALJ erred in holding that GM's use of purge solvent downstream must dissolve "new" or "different" constituents to qualify as a legitimate continued use, the Region claims that a "careful review" of the instances where EPA has allowed continuing uses of solvents reveals that such instances always involve "new, independent" uses that include solubilization of "new unwanted materials." Resp. Br. at 46-47, 24-25 & n.27 (discussing 1985 preamble, 1998 Safety-Kleen determination, and 2000 Sasseville Memo). However, the Region provides no direct responses in its brief to GM's contentions that the Sasseville Memo is not on point in this case, that neither the RCRA regulations nor the Agency's continued use policy require solubilization of additional "new" or "different" contaminants as a condition of qualifying as "legitimate" continuing use, or that even if such a requirement existed, GM meets it because its solvent solubilizes and suspends "more of the same" paint solids in the downstream equipment and piping. Instead, the Region simply repeats the purported requirement that continuing uses solubilize "additional" "new" or "different" contaminants without explaining the reasons why the Agency might have adopted such a requirement. *See*, *e.g.*, *id*. at 23-25 & n.27, 34-35, 41, 46-47, 57-58; OA Tr. at 58-69. The Region concludes that GM's purge mixture is "nothing more than waste pushing waste through waste conveyance lines to a waste storage tank," Resp. Br. at 33, and urges the Board to affirm the ALJ's reasoning on this point. *See id*. at 32, 42, 46-47; OA Tr. at 66, 72-73.

c. *Analysis*

Under the Consolidated Rules of Practice that govern this administrative proceeding, the applicable burdens of proof and evidentiary standard are as follows:

> (a) The complainant has the burdens of presentation and persuasion that the violation occurred as set forth in the complaint * * *. Following complainant's establishment of a prima facie case, respondent shall have the burden of presenting any defense to the allegations set forth in the complaint * * *. The respondent has the burdens of presentation and persuasion for any affirmative defenses.
>
> (b) Each matter of controversy shall be decided by the Presiding Officer upon a preponderance of the evidence.

40 C.F.R. § 22.24.

As mentioned in Parts II.A.2.v-.vi above, the continued use of a material, if deemed to be similar/consistent and legitimate, broadens "the purpose for which [the material] was produced" to include not just the initial deployment or application but also any similar/consistent and legitimate continuing uses. Under EPA's policy, continued use gives rise to a "but for" test that can result in an exception from coverage as a solid waste under the RCRA program. That is, "but for" a continued use of a batch of material that is similar to or consistent with the initial deployment or application of that material and is legitimate, the material would be considered "spent" under the RCRA regulations because it no longer can be used for "the purpose for which it was produced." Thus, in the ordinary case, at the end of the initial deployment or application, per *Howmet*, the material is "spent" under 40 C.F.R. § 261.1(c)(1). But in the case of similar/consistent and legitimate continuing uses, the material would *not* be "spent" until such further uses meeting the conditions of the Agency policy are completed.

Viewed in this light as an exception from the ordinary point at which a material would be determined to be "spent," the continued use policy is conceptually similar to policies underlying regulatory provisions that exempt certain recycled materials from categorization as "solid waste." *See*, *e.g.*, 40 C.F.R. § 261.2(e)(1)(i)-(iii) (materials are not

solid wastes when they are recycled by being used or reused as ingredients in an industrial process or as effective substitutes for commercial products, or when they are recycled by being returned to the original process from which they were generated as substitutes for feedstock materials). These policies are driven by EPA's desire to allow legitimate recycling/reuse efforts that are in keeping with congressional goals in enacting RCRA. *See generally* RCRA § 1003(a)(6), 42 U.S.C. § 6902(a)(6) (encouraging "properly conducted recycling and reuse" as ways to minimize the generation of hazardous waste); 48 Fed. Reg. 14,472, 14,475-76 (Apr. 4, 1983) (discussing attempts to craft regulatory scheme for recycled/reused materials that is neither too broad nor too narrow); 1985 Preamble (same).

It is appropriate in such circumstances to assign the burden of proving continuing use to the party claiming the exception's benefits. *See*, *e.g.*, 40 C.F.R. § 261.2(f) (respondents claiming that a material is not a solid waste "must demonstrate * * * that they meet the terms of the exclusion or exemption"); 1985 Preamble at 642 (explaining that § 261.2(f) "restates the legal principle that parties claiming the benefits of an exception to a broad remedial statutory or regulatory scheme have the burden of proof [i.e., the burdens of producing evidence and of persuasion] to show that they fit the terms of the exception") (citing cases); *see also* Applied Envtl. App. Det. at 1-2 (persons claiming reuse of used mercury relays/switches have burden of documenting their claims that the relays/switches are not "spent," citing 40 C.F.R. § 261.2(f)). This conclusion is further supported by case law that invokes the principle of fairness as a basis for assigning the burden of proving certain claims to parties possessing special knowledge of or access to the facts underlying those claims. *See*, *e.g.*, *United States v. N.Y., New Haven & Hartford Ry. Co.*, 355 U.S. 253, 256 n.5 (1957) ("[t]he ordinary rule, based on considerations of fairness, does not place the burden upon a litigant of establishing facts peculiarly within the knowledge of his adversary"); *In re Hunt*, 12 E.A.D. 774, 804-05 (EAB 2006); *In re City of Salisbury*, 10 E.A.D. 263, 288 n.37 (EAB 2002); *In re New Waterbury, Ltd.*, 5 E.A.D. 529, 541-43 & n.23 (EAB 1994); *In re City of Detroit Pub. Lighting Dep't*, 3 E.A.D. 514, 529-31 (CJO 1991); *In re Tenn. Valley Auth.*, CAA Appeal No. 00-06, at 37 &

n.15 (EAB July 3, 2000) (Order Regarding the Scope of the Record, the Standard of Review, and Allocation of the Burden of Proof) (noting that burden of production "may be influenced by the degree to which the information is peculiarly within" one party's control). The facts underlying a claim of continuing use, in particular the facts necessary to establish the three prongs of legitimate use, would be, in many if not all cases, peculiarly within the knowledge of the party asserting the claim. As we will see in the analysis below, the necessary facts certainly are so in this specific case.

Further, it is also appropriate to categorize a continuing use claim as an affirmative defense. Such a claim is not an element of a prima facie case that a material is "spent" after its initial deployment or application and thus a "solid waste" under 40 C.F.R. §§ 261.1(c)(1), .2; rather, the claim is "avoiding in nature" and would defeat the Agency's prima facie case that a material is a solid waste. *See*, *e.g.*, *New Waterbury*, 5 E.A.D. at 540 ("'[a] true affirmative defense, which is avoiding in nature, raises matters *outside* the scope of the plaintiff's prima facie case'") (quoting 2A Moore's Federal Practice Manual 8-17a (2d ed. 1994)); *In re Standard Scrap Metal Co.*, 3 E.A.D. 267, 272 (CJO 1990) ("[g]enerally, a statutory exception (or exemption) must be raised as an affirmative defense, with the burden of persuasion and the initial burden of production upon the party that seeks to invoke the exception"); *see also In re Capozzi*, 11 E.A.D. 10, 19-20 n.16 (EAB 2003) (party seeking to invoke regulatory exception as "small quantity generator" bears burdens of production and persuasion).[34] Under the Consolidated Rules that govern these administrative enforcement proceedings, affirmative defenses must be pled and proved by the respondent. *See*

[34] For situations where purported "affirmative defenses" are held to be mischaracterized as such and rather are found to be direct challenges to or rebuttals of portions of EPA's prima facie case, see *In re Veldhuis*, 11 E.A.D. 194, 211-12 n.15 (EAB 2003) (whether or not "waters of the United States" existed prior to alleged unlawful discharge activities is element of prima facie case, so claim that "waters" were destroyed prior to discharge activities is direct defense, not affirmative defense) and *Salisbury*, 10 E.A.D. at 289 n.38 (whether or not wastewater discharge exceeded effluent limits is element of prima facie case, so claim of "laboratory error" in measuring pollutant concentrations in discharge is direct defense, not affirmative defense).

40 C.F.R. § 22.24(a) ("respondent has the burdens of presentation and persuasion for any affirmative defenses"); 1985 Preamble at 642 (noting that entity claiming its hazardous secondary material is not a waste because the material falls within a regulatory exception is raising an affirmative defense, and the entity must bear the burdens of producing evidence and of persuasion with respect to that defense).

Mindful of these principles, we address in sequence the three primary arguments raised by GM on appeal. We then turn our attention to the question whether GM's downstream uses of purge solvent in purge mixture constitute legitimate continuing uses of a solvent, and we conclude with a summary of our continuing use analysis.

i. *Force versus Solvent Properties*

We begin with the ALJ's finding that purge mixture is conveyed from the paint applicators to the storage tanks only because GM has designed its paint shops to forcibly push the material there, via pumping, agitation, recirculation, frequent purging, gravity, or a combination thereof. The ALJ found that purge solvent in purge mixture retains "some residual cleaning power," Init. Dec. at 37, 32, but she determined that "the remaining solvent properties in the purge mixture are insufficient to ensure that the purge mixture flows downstream without interruption." *Id*. at 33. Instead, the ALJ held that "what accomplishes the movement of the purge mixture through the purge mixture conveyance system is not its solvent properties, but rather the energy generated by agitation and pumping (and also by recirculation at two of the facilities), as well as the volume of the purge mixture itself." *Id*. at 32; *accord id*. at 33. She therefore concluded that GM's used purge solvent is not "effective" for cleaning its downstream piping and equipment and thus that the purported continuing use is not a "legitimate" one. Init. Dec. at 37 (citing Safety-Kleen App. Det.).

We agree with the ALJ that the record is replete with evidence pertaining to the various procedures and techniques GM has employed over the years to minimize or prevent paint solids from settling out of the purge mixture solution and thereby clogging purge pots and downstream

piping and possibly disrupting vehicle throughput in the assembly plants. *See*, *e.g.*, Init. Dec. at 32-34 (citing testimony of GM witnesses Blair, Chaput, Winkler, and Wozniak regarding continual agitation conducted within purge pots, use of boost pumps to add pressure to purge mixture conveyance systems, installation of recirculation loops at Lake Orion and Moraine plants, occurrence of frequent purging resulting in high volumes of purge mixture at Pontiac plant, additions of fresh purge solvent to purge pots at Lake Orion plant on weekly basis, and so on); Resp. Br. at 50-58 (citing similar or same testimony of EPA witnesses Kendall and Benson and GM witnesses Blair, Chaput, Winkler, and Wozniak). This evidence makes it clear that GM relies quite heavily on force-related methods to achieve thorough cleaning of equipment and piping and to ensure material flows downstream readily so as not to interrupt the continual assembly-line processing of automobiles.

After reviewing all the testimony and documentary evidence provided by the parties, however, we have questions about the ALJ's findings that force alone is responsible for cleaning the purge pots and piping and transporting purge mixture to the storage tanks. As outlined below, the ALJ failed to address certain seemingly important testimony in her Initial Decision. This testimony bears on whether both force and solvent are *necessary* conditions to move paint solids that have settled out of purge mixture, or whether force is a *sufficient* condition to do so by itself. According to several GM witnesses, no amount of force could keep the equipment and piping clean and flowing, as they are currently configured, if the purge mixture did not have solvent in it to solubilize and suspend paint solids. John Wozniak, an expert on automotive paint shop design and operation, testified as follows during direct examination by GM's counsel:

> Q. EPA has claimed, Mr. Wozniak, that the solvent in the purge mixture really isn't the thing that allows the purge mixture to be moved, they say that it's gravity and pumps and agitators. Are you aware of that claim?
>
> A. I've heard that, yes.

Q. And do you agree?

A. No, sir, I do not.

Q. Why not?

A. Because if I didn't have the purge mixture and the solvent that's in the purge mixture, I don't know how I'd move it downstream. I don't think any amount of pumps or agitators would allow me to take the solids, 50 percent of which [sic], and push it downstream. It just – it wouldn't happen.

Q. Would it be fair to say that the solvent works together with these pumps and agitators to move the material?

A. The purge material has a function of reducing the viscosity so we can move this stuff readily down to the purge mixture tank very easily and allow us to keep the lines clean and allow us to keep the material in suspension. And that's what it does and that's why it's designed that way.

Q. If you didn't have the purge solvent in the purge mixture, would you have to use more energy to move that material?

A. Yes. It would be a completely different animal.

5 Tr. at 102-03.

Frederick Blair, a GM engineering group manager specializing in painting operations, similarly testified that the recirculation systems at Lake Orion and Moraine would not function properly if they did not have solvent in them. 4 Tr. at 241. He explained that this is so because the raw paint component otherwise left "would probably be too viscous to actually pump[; the] solvent is very critical in reducing this viscosity

so that it's easy to pump, then you could pump it long distances." *Id*. at 241-42. Margaret Winkler, a GM environmental engineer and an expert in operations of paint booths and purge processes at vehicle assembly plants, echoed Mr. Blair's statement, explaining that GM would not be able to move the paint in the downstream recirculation systems if solvent were not present there because those systems operate at a relatively low pressure of about 70 to 80 pounds per square inch ("psi"), as compared, for example, to the paint recirculation systems located upstream of the paint applicators, which are operated at 280 psi. 7 Tr. at 158; *see* 5 Tr. at 68-69 (Wozniak); *cf*. 8 Tr. at 110-111 (Winkler) (stating that if purge solvent were not present in adequate quantities in the purge mixture storage tanks, purge mixture would be very difficult to remove from the tanks). Significantly, the Region did not rebut these witness statements, and, as noted above, the ALJ did not address them in her Initial Decision.[35]

---

[35] At oral argument, the Board asked the Region to identify evidence rebutting the idea that purge solvent performs a cleaning function downstream of the paint applicators. OA Tr. at 60-61. In response, the Region offered two specific rebuttal points: (1) testimony by Jonathan Warren, GM's chemistry expert, at 5 Tr. at 229-30, that purge solvent does not reduce paint viscosity downstream but only maintains the viscosity reduction level achieved upon cleaning of the paint manifolds and applicators; and (2) testimony by Douglas Kendall, EPA's chemistry expert, at 2 Tr. at 48-49, that purge solvent dilutes the paint and that the dilution continues in a steady state from the paint applicators all the way downstream to the storage tanks. OA Tr. at 61.

Mr. Warren testified that purge solvent (in its fresh and its partly used states) performs many cleaning functions in addition to viscosity reduction, including solubilization, suspension, dispersion, mobilization, and dilution of paint solids, which, in his expert opinion, are necessary to keep the downstream equipment and piping free of settled solids that could clog the system and cause disruptions in assembly-line production. *See*, *e.g.*, 5 Tr. at 210-11, 213-14, 224-36, 249, 255-57, 276, 289-95. The Region's focus on viscosity reduction excludes consideration of solvent's solubilization and suspension functions and thus is somewhat misleading, as GM contends. *See* OA Tr. at 89. Indeed, the fact that either viscosity reduction (Mr. Warren's point) or dilution (Mr. Kendall's point), once achieved at the paint manifolds/applicators, is only maintained rather than increased downstream does not defeat GM's point that solvent is nonetheless still needed to resolubilize and resuspend settled paint solids to keep the lines flowing freely. Moreover, neither of these purported rebuttal points speaks to the question whether, as the systems are currently designed, settled paint solids in the

(continued...)

GM's witnesses testified that, in some circumstances, force alone can be sufficient to remove coagulated paint solids from surfaces where they have adhered. For instance, Mr. Blair and Ms. Winkler testified that GM uses high-pressure water to clean solidified paint off grates and other equipment inside paint booths. 4 Tr. at 220; 7 Tr. at 144; 8 Tr. at 6. Mr. Blair explained that GM uses 40,000 pounds of water pressure to clean the paint booths, and that such water "acts almost like a knife, it just cuts [the paint residues] right off. Very clean." 4 Tr. at 220. Thus, it is perhaps not theoretically impossible for force alone to remove settled paint solids from GM's downstream purge pots, equipment, and piping. However, Mr. Wozniak testified that as the paint shops are presently configured, GM would have to use much more energy to move purge mixture downstream and to keep the equipment clean and flowing if it did not have purge solvent in the purge mixture. *See* 5 Tr. at 103 (Wozniak) (Q: "If you didn't have the purge solvent in the purge mixture, would you have to use more energy to move that material?" A: "Yes. It would be a completely different animal."). Instead, the paint shops are specifically designed to take advantage of the fact that solvent solubilizes and suspends paint solids and thus allows purge mixture to be conveyed long distances to storage tanks with relatively little energy expenditure to facilitate the cleaning and transport. *See*, *e.g.*, 4 Tr. at 182-83 (Blair); 5 Tr. at 69, 128-29 (Wozniak) (pumping is an "energy consumer," so, to minimize energy costs, GM "pick[s] the lowest possible pressure that you can use to keep this stuff in suspension while circulating and that's the pressure you run it at"); 5 Tr. at 29-30, 67-69, 73-84, 95-103 (Wozniak); 6 Tr. at 167-69 (Chaput); 7 Tr. at 119-22 (Winkler).

At oral argument, GM supplied a commonplace example to illustrate its view that solvent and force are both needed to work together to clean paint manifolds and applicators and also downstream equipment and piping. GM explained that when people wash their hands, they do not simply apply soap to the middle of their palms and declare their

---

[35](...continued)
downstream lines can be moved solely by force or whether the solids must be resolubilized and resuspended before they can be moved along down the pipes.

hands clean. Instead, they apply soap to their palms and then use force to rub the soap over all the nooks and crannies of their hands before rinsing them clean with water. OA Tr. at 91. GM claims that a similar procedure occurs with the cleaning of paint manifolds: GM introduces purge solvent through a valve in each manifold, where, if left to its own devices, the solvent would slowly trickle down and spread out, like molasses or syrup, over a portion of the manifold, without cleaning the entire manifold. GM contends it achieves quick and thorough cleaning by introducing turbulence into the manifolds via repeated bursts of pressurized air (the so-called "air chops"), which whip the purge solvent around and facilitate its contact with any paint solids adhering to the manifold surfaces, thereby removing those paint solids. 5 Tr. at 48-49 (Wozniak); 4 Tr. at 110-12 (Blair). Along these same lines, Safety-Kleen also employs a combination of force and solvent to conduct the continuing uses associated with its EPA-approved Continued Use Program™. Safety-Kleen cleans its storage drums using a combination of high-pressured jets and brushes (i.e., force) along with the used solvents it collects from its customers, because the used solvents by themselves are not capable of cleaning the drums as Safety-Kleen requires. *See*, *e.g.*, 6 Tr. at 217 (Ross); RX 32, at 5-6, 9-10 & ex. 3, at 2 (The Safety-Kleen Continued Use Program™ 5-6, 9-10 & ex. 3, at 2 (May 8, 2003)). As in these two handwashing-type examples – i.e., GM's upstream painting equipment and the Safety-Kleen drums – GM argues that it employs a similar kind of cleaning protocol in its plants' downstream equipment and piping, where pressure, agitation, volume, and recirculation are introduced to provide the force necessary to minimize paint solids settling opportunities and to cover with solvent the surfaces where paint solids have managed to settle or adhere, potentially causing clogs if not removed.

In sum, it would appear there is considerable evidence in the record that force and solvent together must be used to achieve the efficient and effective cleaning GM requires to maintain its desired assembly line throughput rates. It would also appear that solvent in some form is likely necessary to resolubilize and resuspend settled paint solids, and the fact that the solvent by itself cannot achieve thorough downstream cleaning does not necessarily mean that purge solvent is

"ineffective" within the meaning of EPA's continuing use policy. This is supported very naturally by the Safety-Kleen example, in which, as just mentioned, used solvents are also unable to clean drums by themselves but need the application of brushes and high-pressured jets to provide cleaning force.[36]

We find puzzling the absence of commentary by the ALJ on GM's witness testimony on this issue, given the centrality of the force-versus-solvent question to the ALJ's overall continuing use analysis. However, as we generally accord considerable deference to administrative law judges' assessments of witness credibility and veracity, *see*, *e.g.*, *In re City of Salisbury*, 10 E.A.D. 263, 276, 293-96 (EAB 2002), we decline to draw definitive conclusions about the evidentiary record without better understanding the ALJ's assessment regarding the credibility of the testimony. Given the importance of this issue to the RCRA analysis, we remand this issue to the ALJ for reconsideration and/or clarification, including additional fact-finding as

---

[36] In a section of our decision below entitled "*Additional Contaminants: 'New,' 'Different,' or 'More*,'" we quote two paragraphs from the Safety-Kleen CUP that explain how force is used in conjunction with solvent to clean drums. *See infra* Part II.A.3.c.iii (quoting RX 32, at 9 (The Safety-Kleen Continued Use Program™ 9 (May 8, 2003))). Those paragraphs are directly relevant in this specific context as well, as is the paragraph in the CUP that immediately follows them, which reads:

> This attraction between the solvent molecules and the "dirty" materials to be removed requires direct contact between the solvent molecules and the molecules of the material in question. Thus, solvent can only solubilize material when the molecules of the material are exposed to the solvent molecules, i.e., when the surface area of the solid material is maximized through mechanical removal and agitation so that large solid pieces are broken up into small particulates. Additionally, the kinetics, or reaction rate, of the solubilization process in enhanced by agitation. As the agitation exposes surface area, it reduces boundary layer thickness, thereby increasing the reaction rate. Without agitation, i.e., any force reducing the boundary layer thickness of the solids exposed to the solvent, only negligible solubilization will occur over time.

RX 32, at 9-10.

necessary for each of the three separate facilities, rather than find clear error in her evaluation of the matter. On remand, we would expect the ALJ to provide an explicit examination of the testimony mentioned above by Messrs. Wozniak and Blair and Ms. Winkler to the effect that purge solvent is a necessary and effective component of GM's downstream cleaning process. Moreover, upon clarification of this point, the ALJ should reexamine her conclusion that purge solvent in purge mixture is ineffective within the meaning of EPA's continuing use policy in light of her clarification.[37]

ii. *Downstream Activity as "Use"*

We turn next to the related question of whether the ALJ erred in accepting the reasons supporting Region 5's allegedly arbitrary and capricious refusal to apply the continuing use policy to the downstream activities in this case. As mentioned above, the ALJ took a minimalist view of purge solvent's utility downstream, holding that GM was attempting to "stretch EPA's continued use doctrine beyond its previous limits, by trying to exempt used solvents that are [themselves] the waste, as it is the contaminated purge solvent mixture that is clogging the machinery, despite retaining some residual cleaning power." Init. Dec. at 37. In so holding, the ALJ embraced the Region's position that the solvent properties exhibited by purge mixture are not responsible for downstream cleaning and thus that there is no real continued use of the material to consider for the RCRA exemption. *Id*. at 33-34, 37, 39-40.

---

[37] The mere fact that both force and solvent may be necessary is not determinative of whether purge solvent in purge mixture is either effective or ineffective within the meaning of EPA's continuing use policy. However, we would expect the ALJ to fully analyze this issue on remand, once she clarifies the facts. For example, we would expect the ALJ to examine the effectiveness question by looking at whether the solvent in purge mixture substitutes for fresh solvent that otherwise would need to be deployed. *See* Safety-Kleen App. Det. at 2. The ALJ may, in the course of her analysis, evaluate whether purge solvent in purge mixture is fully or marginally effective for its use. *See supra* Part II.A.3.a & *infra* Part II.A.3.c.iv (discussing role played by "effectiveness" criterion in analysis of whether a continued use is legitimate).

On appeal, GM claims that its downstream use of purge solvent in purge mixture to resolubilize and resuspend settled paint solids is not, in fact, "unintended, unnecessary, [or] frivolous," as the Region and ALJ appear to believe, but rather is intentional (meaning deliberately planned for) and indeed necessary to ensure equipment and piping do not become blocked by waste paint, which could disrupt the assembly lines and in extreme cases cause GM's plants to miss their production targets. App. Br. at 41. Contrary to this idea, the Region argues repeatedly that the resolubilization and resuspension that occurs downstream is *not* a "use" of solvent but is "simply a state of being of the solvent." Resp. Br. at 30 n.31; *see id*. at 5, 35, 42, 53 (asserting that GM's downstream system merely takes advantage of residual solvent properties that exist in all waste solvent); OA Tr. at 69, 77. The idea seems to be that GM's downstream purge pots and piping merely collect and hold purge mixture, like storage drums or tanks do, until GM can dispose of it. *See* Resp. Br. at 48 ("What GM does is more akin to collecting the used, contaminated solvent into a clean drum, and eventually disposing of the solvent waste that is contained in the drum. While it is in the drum, the solvent waste cannot be said to be 'in use,' even though it is continuing to keep the contaminants in solution and/or suspension[.]").

GM argues to the contrary that it has gone to great lengths over the years to design, install, and maintain paint and purge mixture conveyance systems that will operate continuously and reliably, and that an integral part of this system, as presently designed, is solvent in purge mixture. GM witnesses testified that, due to the configuration of the assembly plants, with long courses of piping downstream of the paint shops that incorporate many bends, turns, lifts, and falls to navigate through the facility, combined with the fact that the interior surfaces of equipment and piping are not perfectly smooth, paint solids have many opportunities to adhere to surfaces where they can cause clogs if left unaddressed.[38] Given these conditions, GM contends that if it did not

[38] As a general matter, purge mixture comes down the pipelines from the purge pots in waves, every *x* hours or so, rather than flowing continuously. As a result, paint solids tend to settle out in between waves and get stuck or clogged in the piping as hard-
(continued...)

have purge solvent in purge mixture, it would not be able to thoroughly clean its equipment and keep paint solids moving downstream.

Specifically, and as mentioned in the preceding section, GM introduced testimony that as the paint shop systems are currently designed and operated, paint solids will settle out of solution and clog the equipment if solvent is not present therein to solubilize and suspend those solids. GM points out that purge mixture is comprised of approximately 20% paint solids (pigments and resins) and 80% purge solvent, which equates to 10% paint solids and 90% solvent (because the solvent-based paints at issue in this case are comprised of 50% paint solids and 50% paint solvents). *See* App. Br. at 42; *see also* 1 Tr. at 286 (Kendall); 2 Tr. at 34-38 (Kendall); 5 Tr. at 78-80 (Wozniak). As such, the solvent in purge mixture is not saturated with waste paint and still retains most of its functionality.[39] *See* 5 Tr. at 293 (Warren). The solvent is, of course, simply doing what solvents do, as the Region contends, but GM has introduced evidence that it has a *need* for the solvent to do what solvents do in its downstream systems. That evidence indicates that GM's consultants deliberately designed the paint shops, painting/purging processes, and downstream conveyance systems with the continued solubilization and suspension functions of purge solvent

---

[38](...continued)
or soft-settled solids. 4 Tr. at 240-41 (Blair); 5 Tr. at 77-83, 96-98 (Wozniak), 230-31 (Warren). This phenomenon is exacerbated by pipes that lift long distances vertically or bend sharply, which increase opportunities for settling of paint solids as the rate at which purge mixture travels slows. *See* 5 Tr. at 97 (Wozniak); 6 Tr. at 46 (Chaput); 7 Tr. at 154-56 (Winkler). The phenomenon is also exacerbated by interior equipment and piping surfaces that are not perfectly smooth, which gives paint molecules plenty of surfaces upon which to adhere and build-up over time, potentially forming clogs if left unaddressed. 5 Tr. at 89-90 (Wozniak); RX 197-198.

[39] The ALJ appears to have assigned little weight to this fact in finding that "it is the contaminated purge solvent mixture that is clogging the machinery." *See* Init. Dec. at 37. More precisely, however, it is the paint solids (insoluble pigments and soluble resins/polymers) in the purge mixture that are clogging the machinery, not the solvent in the purge mixture. *See*, *e.g.*, 2 Tr. at 65-73 (Kendall), 249, 253, 305-06, 321-24 (Benson); 4 Tr. at 234-35 (Blair); 5 Tr. at 74-84, 88-98, 164-65 (Wozniak), 206-14, 230-35, 256-57, 289-91 (Warren); 6 Tr. at 45-49 (Chaput); 7 Tr. at 121 (Winkler); Joint Stips. ¶¶ 36-37, at 9; RX 197-198.

in mind.[40] *See*, *e.g.*, 5 Tr. at 29-30, 73-84, 94-95, 97-98 (Wozniak), 231-35, 255-57 (Warren); 6 Tr. at 40-41, 95-96, 167-68 (Chaput); 7 Tr. at 119-25, 161-62 (Winkler); 8 Tr. at 104 (Winkler); 8 Tr. at 198-204 (Williams). Notably, the Region has not directly rebutted the facts establishing GM's need for purge solvent downstream. Rather, by arguing that GM's downstream systems merely *take advantage* of the residual solvent properties that exist in all waste solvent, the Region seems to be conceding a downstream "use" of sorts of the solvent.

At oral argument, the Board asked the Region whether a build-up of paint solids would occur in GM's downstream systems over time, potentially forming a clog, if the solubilization and suspension functions provided by purge solvent ceased to be available there. OA Tr. at 63-64. The Region acknowledged that purge solvent facilitates the movement of paint solids in GM's pipelines by means of its solubilization and suspension functions, but only in the way that water facilitates the movement of waste through sewage lines. *Id*. at 64-67. According to the Region, "[t]he fact that there is a liquid material will help waste move along." *Id*. at 66-67. In our view, a preponderance of the evidence appears to establish that GM's purge solvents are specifically formulated to solubilize and suspend particular solvent-based automotive coatings. The record appears devoid of evidence that other material, such as water or other non-petroleum-based solvents, would be capable of solubilizing and suspending the paint coatings.[41] Instead, the evidence appears to show that GM needs a specific solvent matched to each solvent-based paint to optimally clean its downstream lines, with all their twists and turns and lifts and imperfect, paint molecule-catching interior surfaces,

---

[40] As explained in note 10 above, prior to the development of the purge solvent recovery systems that exist today, GM used to discard purge mixture in "slop drums" that were situated just outside the paint booths and were used to collect a variety of different manufacturing process wastes. With the advent of the Clean Air Act and its limits on volatile organic compound emissions from solvents, automobile manufacturing companies were obliged to seek other ways to handle their manufacturing waste streams.

[41] In fact, the evidence shows that water will actually accelerate the hardening of one type of coating used by GM (i.e., silane paint used at the Pontiac and Moraine plants). *See* 3 Tr. at 162-65 (Blair); 5 Tr. at 219-22, 236-37 (Warren); *see supra* note 12.

and that if the solvent, combined with the force, fails to do its job, the lines will clog and potentially disrupt GM's production.[42] This strikes us as a "use" of a somewhat contaminated product in GM's downstream lines and not merely a "state of being" of the solvent. Given our reliance on GM witness testimony in reaching this conclusion, however, we remand this point, like the one above, to the ALJ for reconsideration and/or clarification.

iii. *Additional Contaminants: "New," "Different," or "More"*

Next, we move on to GM's third argument on appeal, regarding whether the ALJ erred in holding that purge solvent must dissolve "new" or "different" constituents downstream to qualify as legitimate continued use. We begin by noting that neither the 1985 preamble, which established the Agency's continued use of solvents policy, nor the Agency's applicability determination for Safety-Kleen's CUP, which set forth the three-part legitimacy criteria for continued use, speak to the idea that secondary uses of solvent must dissolve constituents that are "new" or "different" from the constituents dissolved in the initial use. *See* 1985 Preamble at 624; Safety-Kleen App. Det. at 2. Similarly, the relevant regulations say nothing about the idea of continuing uses of solvents solubilizing new or different materials, *see* 40 C.F.R. pts. 260-261, and the statute is silent in this regard, except to the extent that it generally encourages recycling and reuse of materials and reduction in waste generation. *See* RCRA § 1003, 42 U.S.C. § 6902.

In light of the absence of express directives on this matter from these primary sources, the ALJ turned for guidance to the Agency's Cotsworth Letter and Sasseville Memo applicability determinations regarding paint and purge operations at automobile assembly plants. She also examined the 1985 preamble example and the Safety-Kleen CUP

[42] GM's witnesses testified that the first place GM can experience clogging in the paint or purge mixture systems and not disrupt production in some way is at the purge mixture storage tanks. 7 Tr. at 26-27 (Bates), 122-24 (Winkler); *see* OA Tr. at 22.

applicability determination to glean clues about the types of actions that have earned Agency approval in the past.

With respect to the Safety-Kleen CUP, the ALJ accepted the Region's purported "logical assumption" that each drum-washing incidence engaged in by that company involves the solubilization of new and different constituents. Init. Dec. at 24, 36-37. In our view, a preponderance of the evidence in the record supports the contrary conclusion. As GM points out, Mr. Billy Ray Ross, Jr., Safety-Kleen's vice president of environmental compliance, testified that his company dumps CUP solvents into a 200-gallon "product tank," which feeds a drum washer that contains a series of brushes and high-pressured jets. App. Br. at 50; *see* 6 Tr. at 217 (Ross). Safety-Kleen uses thirteen gallons of solvent, in conjunction with the brushes and jets, to wash each drum. 6 Tr. at 217. Mr. Ross suggested that under this setup, CUP solvent transported to the facility in a particular drum may be used to clean that very same drum, *see id*., which means the CUP solvent would not necessarily be solubilizing and suspending new or different contaminants in every instance of drum washing. Instead, it would be solubilizing and suspending *more of the same* contaminants. The record reveals that Safety-Kleen was aware this fact might cause EPA to question the effectiveness and thus legitimacy of its continued use of these solvents. In this regard, Safety-Kleen explained the following in its CUP program manual:

> [Safety-Kleen] recognizes that because CUP solvents would be used to clean drums holding a residual amount of identical CUP solvent, a question may arise as to whether the only cleaning action [that] may be occurring results from mechanical agitation or flushing in conjunction with brushes used as part of the CUP drum washer unit, rather than from actually dissolving or degreasing one substance with another. However, the question wrongly assumes that cleaning solvent can work on a particular matrix without mechanical agitation. Though this assumption may hold true for miscible [i.e., capable of being mixed] liquids without

> agitation (given enough time), this assumption does not hold true when the matrix to be cleaned includes solid material, such as is the case with the dirty drums.
>
> Similar to the parts cleaning process, drum cleaning is accomplished by a combination of factors working hand-in-hand, including chemical interaction (here, the solvent and dirt plus residual petroleum products), mechanical agitation and pressure. The chemical interaction element of the process is critical. Solvent dissolves materials on the metal surface of the drum. Solvent solubilizes these materials by molecularly attracting and thereby separating molecules of a particular material from each other. This "like dissolves like" relationship is at the core of the drum cleaning process.

RX 32, at 9 (The Safety-Kleen Continued Use Program™ 9 (May 8, 2003)).[43]

EPA approved the Safety-Kleen CUP as a legitimate continuing use under RCRA, despite the fact that Safety-Kleen's continued use of a particular solvent can in some instances involve solubilization and suspension of the same kinds of constituents solubilized and suspended by that solvent in its first use. Significantly, moreover, in establishing the three-part test for legitimacy of continued uses, the Agency did not specify that further uses of used solvent must dissolve "new" and "different" constituents that the solvent did not dissolve in its earlier use. *See* Safety-Kleen App. Det. at 2; *cf.* 1985 Preamble at 638 (discussed *infra* Part II.A.3.c.iv) (establishing guidelines for distinguishing "sham" recycling activities from legitimate recycling activities; said guidelines do not include idea that uses of secondary materials must achieve tasks that are wholly new and different from initial tasks). Thus, contrary to

---

[43] These two paragraphs from the Safety-Kleen CUP program manual are also relevant in the section of our decision above entitled "*Force versus Solvent Properties*." *See supra* note 35 and accompanying text.

the ALJ's finding, the Safety-Kleen example does not support the proposition that continued uses of solvent must always target new or different constituents to be deemed legitimate continued uses.

Next, with respect to the 1985 preamble example, which involved circuit board cleaning as the first use of a solvent and metal degreasing as a second use, the ALJ stated, "Presumably, the contaminants that were to be cleaned off of circuit boards would not be the same as the contaminants that are cleaned during metal degreasing." Init. Dec. at 37. Even if this were true, it would not support her conclusion, in part on the basis of this example, that continued uses allowed under the RCRA program *must* solubilize "new" or "different" contaminants. We decline to follow the ALJ in speculating that the constituents solubilized in the 1985 preamble example's second use are in every case "new" and "different," in whole or in part, from those solubilized in the first use. As noted above, the preamble does not draw such a distinction. *See* 1985 Preamble at 624.

Finally, in our view, neither the Cotsworth Letter nor the Sasseville Memo[44] is dispositive in light of the unique facts and

---

[44] The Sasseville memo "progeny," which consist of two letters from Robert Springer of EPA Region V to the States of Michigan and Ohio written in March 2001, state the following:

> The Agency believes that it is clear on the face of the regulations that [RCRA] Subpart BB is applicable to [piping, pumps, and fittings used to transport waste paint and solvents from automobile painting operations to storage tanks]. This position was previously made public by U.S. EPA through a letter dated July 29, 1997 [i.e., the Cotsworth Letter], and an applicability determination dated June 2, 2000 [i.e., the Sasseville Memo] * * *. We are writing to confirm, as set forth in those documents, that "after the solvent and paint mixture is used to clean the spray gun, it is a waste if at that point it is no longer part of the manufacturing process," and once "the solvent serves thereafter only to keep contaminants in suspension until they reach the hazardous waste storage tank, if the solvent does not dissolve additional constituents, it is a waste." U.S. EPA does not accept the position that the solvents are still serving their

(continued...)

circumstances presented here. First, in the Cotsworth example, the fact pattern presented to EPA for interpretative analysis does not match the situation at GM's assembly facilities. The Cotsworth inquirer asked about the status of purge solvent in automobile paint booths and associated downstream tanks and piping, but not with respect to whether or where that solvent could be considered a "spent material" or a "product" in "continuing use," which are the pressing questions in the GM matter. Instead, the inquirer asked whether the downstream tanks and piping could be considered to be "manufacturing process units" or "associated non-waste-treatment manufacturing units" pursuant to 40 C.F.R. § 261.4(c), such that purge solvent contained within those systems would be exempt from RCRA regulation. Cotsworth Letter at 2. Notably, however, section 261.4(c) governs "[h]azardous wastes [that] are exempted from certain regulations" when they are in manufacturing units of various types, so the inquirer's question to the Agency incorporated an inherent assumption that the purge solvent is already a "waste" when it is in the downstream systems. *See* 8 Tr. at 211-17 (Williams) (testifying that, in her view, the Cotsworth inquirer did not raise questions regarding continued use or spent material but rather suggested that the solvent is a waste after it has cleaned the paint applicators). EPA's response reflected this assumption that used purge solvent had no further use after cleaning the paint applicators, and thus the Agency did not address the difficult questions pertaining to whether the material in the downstream lines is "spent" or in "continuing use" under the RCRA program. *See* Cotsworth Letter at 1-2. The Cotsworth

---

[44](...continued)
intended purpose in the waste lines.

CX 18, at 1 (Letter from Robert Springer, Division Director, Waste, Pesticides & Toxics Division, EPA Region 5, to Arthur R. Nash, Jr., Deputy Director, Michigan Department of Environmental Quality 1 (Mar. 28, 2001)); CX 95, at 1 (Letter from Robert Springer, Division Director, Waste, Pesticides & Toxics Division, EPA Region 5, to Mike Savage, Chief, Division of Hazardous Waste Management, Ohio Environmental Protection Agency 1 (Mar. 28, 2001)). We need not address these two letters further because they simply reference EPA's two earlier determinations without elaborating upon the Agency's reasons for interpreting the RCRA requirements in this way.

Letter therefore carries little-to-no instructive weight in our analysis of GM's situation.

Second, in the Sasseville case, Region 5 inquired about the regulatory status of used purge solvent in downstream piping and equipment at a Ford Motor Company plant in Avon Lake, Ohio. The Alliance for Automobile Manufacturers, an industry trade association, also weighed in, asserting on behalf of automobile manufacturers that "the solvent/paint mixture leaving the spray guns is not a hazardous waste because the solvent is *being used* to keep the mixture flowing." Sasseville Memo at 2 (emphasis added). As so presented, this fact pattern is closer to the one we have been charged with deciding because it at least mentions the idea of an ongoing, further use of the partially used solvent. In responding to the inquiries, however, EPA did not engage in an analysis of the concepts of "spent material" or "continuing use" with respect to the solvent. Instead, the Agency stated the following:

> After the solvent and paint mixture is used to clean the spray gun, it is a waste if at that point it is no longer part of the manufacturing process. The purpose of the solvent is to remove the waste paint, clean the spray gun, and allow the use of new colors. If the solvent serves thereafter only to keep contaminants in suspension until they reach the hazardous waste storage tank, and if the solvent does not dissolve additional constituents, it is a waste. If this type of waste management is occurring, the solvent/paint mixture is a hazardous waste, and any pipes, valves, pumps, etc. that are part of the discharge system following the paint spray guns are subject to RCRA Subtitle C regulations, including subpart BB.

*Id*.

The first sentence of the foregoing quotation appears problematic, in that, as GM witness Marcia Williams (a former head of

EPA's Office of Solid Waste and an expert in RCRA waste determinations) rightly pointed out during the hearing, the proper evaluation of whether a solvent is in continued use is *not* dependent on whether it is part of a manufacturing process. Continued uses can indeed occur as parts of various manufacturing processes, but they can also occur as parts of other types of processes or activities, including waste-related activities or the drum-washing activities that occur at Safety-Kleen, depending on the user's particular needs. *See* 1985 Preamble at 624 (stating that the continued use of a solvent is analogous to using or reusing a secondary material as an effective substitute for commercial products, and placing no limitations on the types of activities for which products can continue to be used); *see also* 8 Tr. at 219 (Williams) (the key question regarding whether a material is in continued use is whether the product is in fact still being used, not whether it is part of a manufacturing process).

The central sentence in the above quotation also causes concern. That sentence – "[i]f the solvent serves thereafter only to keep contaminants in suspension until they reach the hazardous waste storage tank, and if the solvent does not dissolve additional constituents, it is a waste" – contains no explanation of or reference to a source of authority for the requirement that solvent must solubilize "additional" constituents to avoid categorization as a "waste." Instead, the Sasseville Memo simply asserts this requirement without analysis or discussion. Moreover, the presence of two "ifs" in the sentence appears to indicate EPA's lack of certainty about the actual role used purge solvent plays in the downstream equipment and piping at Ford's Avon Lake and similar plants. Nothing on the face of the Memo indicates whether EPA knew solvent use in the downstream system at issue was necessary to prevent clogging problems and consequent possible disruptions in vehicle throughput rates. In such circumstances, it would be a stretch to conclude on the basis of the Sasseville Memo that, in the Agency's view, purge solvent is not actually needed – and is not actually *used* – to solubilize and suspend paint solids in downstream equipment and piping. This is the very argument, however, that the Region is making. *See*, *e.g.*, Resp. Br. at 23-25 & n.27, 30-36 & n.31, 46-49, 57-58; OA Tr. at 61-79.

And it is an argument the ALJ seemed to embrace. *See* Init. Dec. at 33-34, 36-37.

Notably, neither the Sasseville Memo nor its progeny, and neither the Region nor the ALJ, offer any justifications of any kind for *not* allowing continued uses of a solvent to solubilize and suspend more of the same constituents. Similarly, none of these sources explain why such continued uses would not be encouraged under RCRA if a need for the solvent functions truly existed and the partially used solvent could satisfactorily discharge the task, without need for the employment of a fresh solvent to complete the task. In light of the RCRA precepts encouraging recycling and reuse of materials and discouraging waste production, and considering the text of the 1985 preamble that establishes the Agency's continued use policy, we see no basis for concluding that EPA would have intended to limit allowable continued uses of solvents to the solubilization and suspension of "new" and "different" contaminants while excluding "more of the same" contaminants. It appears to us that the Sasseville Memo's focus on additional or new constituents is simply one way by which the Agency evaluates the legitimacy of continued use, i.e., by assuring that the use is necessary. It is to that important question of legitimacy of continued use to which we now turn.

iv. *Legitimacy of Continued Use*

Having now addressed GM's primary arguments on the topic of continued use, we next turn our attention to the question of the "legitimacy" of GM's continued uses. As noted above, EPA was aware, when it promulgated the continued use policy, that a decision to allow certain continued uses of partially contaminated materials might invite attempts to evade the requirements of the RCRA program. The Agency harbored particular concern that the regulated community might try in some instances to disguise waste disposal or treatment practices as ongoing production activities involving partly used materials. To prevent these types of possible abuses, the Agency established three criteria that any continued use has to meet to be deemed a "legitimate" continued use under the statute, namely, that the use must be:

(1) effective for the task; (2) necessary; and (3) conducted using the appropriate amount of material needed to perform the task, not an excess amount of material. Safety-Kleen App. Det. at 2.

These criteria are the same or similar in many respects to guidelines and proposals set forth by EPA to distinguish "sham recycling" activities from legitimate recycling activities. For instance, in the 1985 preamble to the final solid waste rules, the Agency listed five situations it regarded as shams: (1) cases where secondary materials are ineffective or only marginally effective for the claimed uses (e.g., use of heavy metal-laden sludges to make concrete, where the sludges do not contribute any significant element to the concrete's properties); (2) cases where secondary materials are used in excess of the amounts necessary to achieve the tasks; (3) cases where secondary materials are not as effective as the materials they are replacing; (4) cases where no records are compiled regarding the purported recycling transactions; and (5) cases where secondary materials are not handled in a manner consistent with their purported use as raw materials or commercial product substitutes (e.g., not guarded against significant economic loss through leakage or fire, etc.). 1985 Preamble at 638; *accord* 1986 Guidance Manual at 1-16.

Similarly, in its most recent proposed amendments to the definition of solid waste, the Agency proposed to codify legitimacy factors for recycling activities. EPA suggested that legitimacy determinations must be made by considering two factors, namely, whether: (1) the secondary material in question provides a useful contribution to the recycling process or to a product of the recycling process; and (2) the recycling process yields a valuable product or intermediate. [Proposed] Revisions to the Definition of Solid Waste, 72 Fed. Reg. 14,172, 14,198 (Mar. 26, 2007) (proposed for codification at 40 C.F.R. § 261.2(g)).[45] The Agency also proposed two other factors

[45] The proposed rule specifies that a secondary material provides a "useful contribution" if it:

(continued...)

that may indicate legitimacy, namely, whether: (1) the material to be recycled is managed as a valuable commodity; and (2) the product of the recycling process does not contain significant amounts of hazardous constituents or exhibit hazardous characteristics that are not found in analogous products. *Id*.

These ideas seem reasonably encapsulated in relevant respects in the three-part test for legitimate continued use set forth in the Safety-Kleen applicability determination, which provides the appropriate framework for our analysis (keeping in mind that we are not dealing with a "spent material" being recycled but rather a used material that purportedly is in continuing use and thus is an exception to the ordinary circumstance where a material is "spent" after its initial deployment or application). In terms of applying the test to GM's situation, we have already indicated in Parts II.A.3.c.i-.ii above that we are asking the ALJ to determine on remand whether a preponderance of the evidence in the record supports findings that purge solvent in purge mixture is (1) "effective" and (2) "necessary" for cleaning downstream equipment and pipelines that run from the paint applicators to the purge mixture storage tanks. The ALJ will be obliged in so doing to make specific determinations on these two elements, based on a review and robust discussion of all relevant testimony and evidence pertaining to these matters.

---

[45](...continued)

(A) Contributes valuable ingredients to a product or intermediate; or
(B) Replaces a catalyst or carrier in the recycling process; or
(C) Is the source of a valuable constituent recovered in the recycling process; or
(D) Is recovered or regenerated by the recycling process; or
(E) Is used as an effective substitute for a commercial product.

72 Fed. Reg. at 14,216 (proposed for codification in 40 C.F.R. § 261.2(g)(2)(i)(A)-(E)). A product or intermediate is deemed "valuable" if it is "[s]old to a third party" or "[u]sed by the recycler or the generator as an effective substitute for a commercial product or as an ingredient or intermediate in an industrial process." *Id*. (proposed for codification in 40 C.F.R. § 261.2(g)(2)(ii)(A)-(B)).

As for determining the third legitimacy factor, i.e., the quantity of partially contaminated material continuing to be used, a remand for further consideration is also necessary. At this writing, we do not know, nor does the record appear to indicate, whether the amount of purge solvent in GM's downstream equipment and piping is the actual amount needed to perform the task of keeping the machinery clog-free, or whether it is more than is legitimately needed to clean the lines. If there is more solvent present in the purge mixture than actually needed to solubilize and suspend paint solids and move the mixture downstream, GM's continued use of excess solvent would be deemed to be illegitimate.[46] *See* Safety-Kleen App. Det. at 2 (specifying that continued use of used solvents for drum washing is *not* considered legitimate if the continued use involves employment of a larger quantity of solvents than would normally be required to wash the drums).

Notably, Safety-Kleen took steps to analyze exactly how much used solvent it needed to clean its drums. *See* 6 Tr. at 217 (Ross) (testifying that Safety-Kleen had conducted "drum studies" to determine how much used CUP solvent is needed to clean the drums effectively "but not [to] overclean the drum[s], not waste a bunch of solvent through there just as a sham for a way to get rid of [CUP] solvent"). The company determined that it needs thirteen gallons of used CUP solvent to clean each drum. *Id.*; *see* RX 32, at 9 (The Safety-Kleen Continued Use Program™ 9 (May 8, 2003) ("As part of the CUP, [Safety-Kleen] also conducted the Engineering Drum Cleaning Study that demonstrated the effectiveness of the CUP solvent. The drum cleaning study encompassed the basic elements of any industrial cleaning process evaluation: time, agitation and chemistry (type and concentration of the solvent)."); RX 32 ex. 3, at 5 (Robert Janicki & Dennis Brinkman, Safety-Kleen Corp., *Study of Drum Cleaning with Continued Use*

[46] In a case such as this, where the solvent being "used" is a material that is being collected for reclamation, and where that solvent historically was disposed of as hazardous waste, there is a real potential for the purported "use" to mask disposal of hazardous waste under the guise of a necessary but perhaps marginally (or even fully) effective use. This is particularly true given that the purge mixture itself, when it is transported to the purge mixture storage tanks, is what gives rise to the need for the solvent "use" in the first place.

*Solvent* 5 (Sept. 24, 1997)) (describing and reporting results of studies conducted on drum cleaning program, which concluded that "[t]he average total flowrate for the drum washer is 22 gal/minute. Our study showed the time needed for cleaning all but the most highly contaminated drums was 35 seconds. Thus, 13 gallons of solvent per drum is required.").

The record in the present matter does not appear to contain any similar analysis from GM regarding its continuing use of purge solvent in the purge pots, equipment, and pipelines that stretch from the paint applicators to the purge mixture storage tanks. We therefore remand the matter to the ALJ for further fact-finding regarding this third and vital component of the legitimacy evaluation of GM's downstream use. The questions on remand will be whether GM can establish, as Safety-Kleen did, how much used solvent is needed to keep purge mixture (or more specifically, the paint solids portion of purge mixture) flowing in the downstream purge pots, equipment, and piping, and whether that amount of solvent is exceeded at the three assembly plants at issue in this case. GM will be obliged to carry the burdens of production and persuasion on these points, as established in Part II.A.3.c above.

v. *Purge Mixture Storage Tanks*

Finally, we turn to one last argument GM raises on appeal pertaining to the Agency's continued use of solvents policy. GM argues that it continues to employ used purge solvent in the purge mixture storage tanks, as is, to keep the paint polymers in the mixture from hardening and clogging the tanks, in the same way that the company continues to use solvent to prevent its downstream equipment and piping from clogging. App. Br. at 52-54. Thus, according to GM, the used solvent is still not "spent" when it is in the storage tanks. *Id*. The reasons GM gives to support this position are largely the same as those it presented for the downstream system uses, involving solubilization and suspension of paint solids to keep the mixture fluid enough to be capable of being pumped out and transported to off-site recycling facilities for reclamation of the purge solvent. *Id*. at 53. GM points out that each storage tank has an agitator in the bottom to keep the purge mixture

moving and, in conjunction with the solvent, to reduce settling opportunities. *See* OA Tr. at 17.

One difference between the storage tank scenario and the downstream purge recovery systems scenario is that GM's own witnesses testified that clogs in the storage tanks do not have the potential to adversely affect the assembly plant's vehicle production rates, as clogs in the downstream purge pots, equipment, or piping do. 7 Tr. at 26-27 (Bates), 122-24 (Winkler); *see* OA Tr. at 22. Thus, the need for solvent appears to be much less urgent in the storage tanks, from an operational standpoint, than it may be in the downstream conveyance systems. A second difference is that the State of Michigan holds the position that the point of generation of a hazardous waste is at the point the purge mixture enters the purge mixture storage tanks. RX 21, at 1 (Letter from Arthur R. Nash Jr., Deputy Director, Michigan Department of Environmental Quality, to Patrick J. McCarroll, GM Legal Staff 1 (Feb. 14, 2001)); *see* RX 182A at 9 (Final Brief for *Amicus Curiae* State of Michigan in Support of Petitioner GM, *GM Corp. v. U.S. EPA*, Docket No. 02-1242, at 9 (D.C. Cir. filed Dec. 18, 2003)) (explaining that, in Michigan's view,"purge solvents that remain continuously in-use in the paint purge piping system need not be regulated under Michigan's hazardous waste scheme; the solvents are not considered solid wastes after they exit the paint spray guns by virtue of the continued useful purpose they serve in the purge piping system"); 7 Tr. at 215 (Winkler).

The ALJ found GM's position that used solvent is not "waste" when it is in the purge mixture storage tanks (along with a similar position argued before the ALJ that it is not "waste" when it is in tanker trucks being transported to the reclamation facilities, which GM abandoned upon appeal[47]) "to be the gravamen against GM's argument." Init. Dec. at 40. The ALJ held that "[c]learly, the contaminated purge mixture being transported in the tanker truck to the reclaimer is waste, as is the purge mixture in the purge mixture storage tanks at GM's

[47] GM stated at the oral argument that it no longer claims that purge solvent in purge mixture is not a spent material when it is sent off-site for reclamation. OA Tr. at 16-17.

facilities. The purge mixture is a spent material that is being sent for reclamation, and therefore meets the regulatory definition of waste." *Id*. This holding skips over rather than engages the questions whether the "spent material" and "continued use" ideas might apply, as GM argued, to material contained in GM's storage tanks.

In light of our finding in Part II.A.2.c.vi above that purge solvent is initially deployed to clean paint manifolds and applicators, we disagree with the view that part of that initial deployment includes keeping purge mixture fluid while it is contained in the storage tanks, awaiting removal for reclamation off-site. We will, however, entertain GM's arguments that the use of the solvent in the purge mixture storage tanks might be a continued use of solvent under EPA's policy.

Applying the three-part legitimacy test for continued use, we note at the outset that some evidence in the administrative record seems to indicate that used solvent may be "effective" in performing the function of rendering purge mixture sufficiently fluid that it can be pumped out of the purge mixture storage tanks (which in fact has been done for years at all three assembly plants every ninety days or less). The evidence on this point is not as clearly developed as it might be, however, and there may be countervailing evidence as well. The evidence is even less clear regarding whether used solvent is "necessary," the second legitimacy criterion, to keep purge mixture fluid in the tanks. As just mentioned, GM's own witnesses testified that clogs in the storage tanks will not affect its vehicle production rates, so GM cannot claim that its ability to produce cars and remain competitive in the automobile sales business is dependent in any way on what happens in the purge mixture storage tanks. However, another GM witness testified that if purge solvent were not present in adequate quantities in the purge mixture storage tanks, purge mixture would be very difficult to remove from the tanks, and reclamation companies would likely stop taking GM's material. 8 Tr. at 110-111 (Winkler). Further evidentiary development is needed to flesh out this "necessity" analysis. Finally, there is no evidence whatsoever in the record regarding the third criterion of legitimate continued use, i.e., what quantity of used purge solvent would actually be needed to achieve these ends. We therefore

remand this portion of the continued use analysis to the ALJ for reconsideration, clarification, and further fact-finding on all three prongs of the legitimacy test, should GM continue to assert that the purge solvent in purge mixture in the storage tanks is not a waste.[48]

vi. *Summary of Continued Use Analysis*

In summary, we remand this case to the ALJ for fact-finding and reevaluation of the legitimacy of GM's purported "continuing uses" of purge solvent, in accordance with the three-part legitimacy test set out by EPA in the 1998 Safety-Kleen applicability determination (which is grounded in part in legitimacy ideas set forth in the 1985 preamble for recycling activities). If GM can demonstrate that it is engaging in legitimate continued uses of purge solvent in its downstream purge solvent recovery systems and purge mixture storage tanks, then such uses should be accorded the same Agency sanction as the Safety-Kleen continuing use.

In particular, if GM can establish, by a preponderance of the evidence, that purge solvent in purge mixture is *effective*, *necessary*, and present in no more than the *quantity actually needed* to move paint solids through the downstream piping and equipment, then that use of purge solvent will be deemed to be legitimate and the purge solvent will not be considered "spent" until the use is concluded. Similarly, if GM can establish that purge solvent in purge mixture is *effective*, *necessary*, and present in no more than the *quantity actually needed* to allow removal of purge mixture from the purge mixture storage tanks, then that use also will be deemed legitimate and the purge solvent will not be considered "spent" until that use is concluded. However, if GM fails to carry the burdens of presentation and persuasion on any of the legitimacy prongs

[48] Notably, if GM's alleged continued use of purge solvent in the downstream purge solvent recovery system (purge pots, equipment, piping) fails to qualify as a similar/consistent and legitimate continued use, then purge solvent will be considered a solid waste and a hazardous waste at the point it completes its initial deployment as a paint manifold/applicator cleaner. There would be no need, in such a situation, to evaluate whether GM's alleged continued use of purge solvent in the purge mixture storage tanks is legitimate – instead, it would be a RCRA-regulated waste there.

for the two purported continuing uses in question, then such failure will result in a legal finding that the material is "spent" and a solid/hazardous waste following its initial deployment in removing paint from the manifolds and applicators.[49]

B. *Statutory Argument: Is Purge Solvent a "Discarded" Material?*

Next, we move on to briefly address GM's so-called "statutory argument," in which the company contends that the ALJ erred by holding that purge material is "discarded" at the point it exits the paint applicators and therefore qualifies as a waste that must be managed in accordance with RCRA subtitle C. App. Br. at 16-25. GM posits that EPA is authorized by Congress to regulate only certain specific materials – e.g., "discarded" ones, per the definition of "solid waste" in RCRA § 1004(27) – and that any interpretation by EPA enforcement officials or the ALJ of EPA's RCRA regulations that would impose regulation on materials that are *not* actually "discarded" under the statute would improperly expand EPA's statutory jurisdiction.[50] App. Br. at 16 (citing *Bowen v. Georgetown Univ. Hosp.*, 488 U.S. 204, 208 (1988) ("It is axiomatic that an administrative agency's power to promulgate

---

[49] Our analysis in the foregoing section incorporates an assumption that the two alleged further uses of purge solvent are sufficiently *similar to* or *consistent with* the solvent's initial deployment to fulfill the first condition of EPA's continued use policy. We discern no need to belabor this point in light of the fact that Region 5 acknowledges that purge solvent in purge mixture retains its ability to solubilize and suspend paint solids in the downstream purge solvent recovery systems and in the purge mixture storage tanks and indeed does so at GM's three facilities. *See*, *e.g.*, Resp. Br. at 34-36, 41-42, 53, 57-58, 67. However, in the event that any question exists on this point, nothing precludes the ALJ, on remand, from examining whether the two purported further uses of purge solvent at issue in this case are sufficiently similar to or consistent with the solvent's initial deployment as a painting equipment cleaner to qualify as continued uses under EPA's policy.

[50] GM takes pains to point out that, in advancing this argument, it does not intend to raise a collateral attack on the RCRA regulations themselves. App. Br. at 16-17 n.4. Rather, GM believes that the Region's and ALJ's interpretations of the RCRA regulations, as applied to the facts of this specific case, do not comport with the intent of Congress in promulgating RCRA. *See id*. (arguing that "EPA's rules must be read so they are consistent with EPA's governing statute").

legislative regulations is limited to the authority delegated by Congress."); *La. Pub. Serv. Comm'n. v. FCC*, 476 U.S. 355, 374 (1986)).

GM notes that the U.S. Court of Appeals for the District of Columbia Circuit has sketched contours of the meaning Congress assigned to the term "discarded" (which Congress did not specifically define in the statute) through the issuance of a series of decisions that address that question in a variety of contexts. GM discusses two of those cases, observing first that in *American Mining Congress v. EPA*, 824 F.2d 1177 (D.C. Cir. 1987) ("*AMC I*"), the D.C. Circuit held that Congress intended the statutory term "discarded" to take its common, ordinary, every day meaning – which is "disposed of," "abandoned," or "thrown away" – and that materials being reused in ongoing manufacturing or industrial processes, though "spent," should not yet be considered "solid wastes" because "they are destined for beneficial reuse or recycling in a continuous process by the generating industry itself" and thus are not "abandoned" or "thrown away" (i.e., are not "discarded"). *Id*. at 1184-86, 1190, 1193 (cited in App. Br. at 18-19). Second, GM points out that in *Association of Battery Recyclers, Inc. v. EPA*, 208 F.3d 1047 (D.C. Cir. 2000) ("*ABR*"), the D.C. Circuit reaffirmed and extended the *AMC I* holding to a case involving temporary storage of used materials prior to their reintroduction into ongoing production processes, ruling that such materials are not "discarded" under the statute because they, too, are destined for beneficial reuse and thus are not disposed of, abandoned, or thrown away during their storage period. *Id*. at 1050-53, 1056 (cited in App. Br. at 19-20).

In light of these rulings, GM argues that purge solvent is not "discarded" when it is traveling through the assembly plants' purge solvent recovery systems or contained within the purge mixture storage tanks, or even when it is being shipped off-site for reclamation by third parties and subsequent reuse by GM. *See id*. at 20-25. Purge solvent, claims GM, is a valuable economic commodity that it carefully manages and saves at all times so as to send as much as possible off-site for reclamation, reconstitution, and beneficial reuse. *Id*. at 20-21. GM's intent is never to discard used purge solvent, it professes. In the

company's view, the reclamation facility, and not GM itself, makes the final decision as to what portion of the material sent to it by the assembly plants can be reclaimed and reconstituted into useful products and what portion must be "discarded" as unsalvageable. *Id*. at 23-25. On appeal, GM challenges the ALJ's contrary conclusions on these points as erroneous. *Id*. at 25.

The Region claims in opposition that GM's reliance on *AMC I* and *ABR* is misplaced and that the D.C. Circuit's opinion in another case, *American Petroleum Institute v. EPA*, 216 F.3d 50 (D.C. Cir. 2000) ("*API II*"), is more on point in these circumstances. In that case, the Region observes, the D.C. Circuit held that in situations where "an industrial by-product may be characterized as discarded or 'in-process' material, EPA's choice of characterization is entitled to deference" from the federal courts as long as that choice is supported by a reasoned decisionmaking process. *Id*. at 57 (cited in Resp. Br. at 62). The Region then argues that moving purge mixture through the assembly plants and storage tanks and then off-site for reclamation constitutes a form of "discard" under the RCRA regulations, as "reclamation of a spent material is a form of recycling that legally is considered to be discard under 40 C.F.R. §§ 261.2(a)(2) and 261.2(c)(3)." Resp. Br. at 62-63. The Region therefore concludes that the ALJ properly identified GM's activities as comprising management of discarded waste.

As noted above, the RCRA statute does not contain a definition of "discarded," and the D.C. Circuit has been called upon time and again to pass judgment on EPA's implementation of the statutory idea in various specific manufacturing/industrial contexts.[51] *See*, *e.g.*, *API II*,

---

[51] The regulations EPA promulgated to implement the RCRA program do, of course, contain a definition of "discarded." That definition, however, incorporates the definition of "recycled" materials, which itself leads to the definition of "spent material" and, on these facts, takes one back to the analysis set forth in the foregoing section on the regulatory interpretation of the latter term. *See* 40 C.F.R. § 261.2(a)(2)(ii), .2(c)(2)-(3) (a "discarded" material is one that is, among other things, "recycled," or accumulated, stored, or treated before recycling, while "recycled" materials include "spent materials" that are "reclaimed" through, for example, regeneration of a spent solvent, or are burned

(continued...)

216 F.3d at 55-58 (oil-bearing wastewaters from petroleum refining); *ABR*, 208 F.3d at 1051-56 (secondary materials generated in mining/mineral processing operations); *Am. Mining Cong. v. EPA*, 907 F.2d 1179, 1185-87 (D.C. Cir. 1990) ("*AMC II*") (metals-bearing sludges from smelting operations); *Am. Petroleum Inst. v. EPA*, 906 F.2d 729, 740-42 (D.C. Cir. 1990 ("*API I*") (zinc-bearing slag produced in steel manufacturing); *AMC I*, 824 F.2d at 1179-86 (mineral- and oil-bearing materials generated by mining and oil-refining industries). The court has carefully examined the language, structure, purpose, and legislative history of the statute and determined that Congress intended the word to take its plain, ordinary, every day meaning. *See*, *e.g.*, *AMC I*, 824 F.2d at 1183-93.

We find upon review that until such time as the ALJ has complete factual findings on the questions whether used purge solvent is in legitimate continuing use in the purge solvent recovery systems and the purge mixture storage tanks, we cannot determine whether purge solvent in purge mixture at GM's facilities is "disposed of," "abandoned," or "thrown away." For example, if the facts ultimately show that *all* the purge solvent in purge mixture is legitimately needed and used to move the paint solids downstream, then clearly none of the solvent is "discarded" in the sense that it is not "disposed of," "abandoned," or "thrown away" when it is in the purge solvent recovery systems; rather, it is being used in a legitimate and real way. However, if the facts indicate that only a certain percentage of the purge solvent is needed in the recovery systems, then the picture becomes more complicated. Under D.C. Circuit precedent, the percentage of the purge solvent *not* needed to solubilize and mobilize paint solids in such circumstances likely would be characterized as "discarded," as it is essentially being "disposed of" by GM by being collected for shipment

---

[51](...continued)
for energy recovery). We need not revisit elements of the regulatory analysis in this statutory analysis context, as the Region does in its response brief. *See* Resp. Br. at 62-63 (citing 40 C.F.R. § 261.2(a)(2), .2(c)(3)). Instead, we focus on the legal principles set forth in the D.C. Circuit's series of "discarded" cases to evaluate the application of the statutory term to these facts. *See AMC II*, 907 F.2d at 1186 (noting great ambiguity of statutory term "discarded") (citing *API I*, 906 F.2d at 740-41).

off-site and subsequent reclamation and reconstitution into fresh materials. *See*, *e.g.*, *AMC II*, 907 F.2d at 1186-87 (smelters "discard" metals-bearing sludges that settle out of wastewater stored in surface impoundments, even though the metals in the sludges "may" be reclaimed in the future); *API I*, 906 F.2d at 740-42 (steel producers "discard" zinc slag, a byproduct of steel manufacturing, when they send it to metal reclamation facilities for mandatory recycling). In any event, we reserve judgment as to the question of "discard" while purge mixture is in the purge solvent recovery systems and purge mixture storage tanks[52] and remand these matters to the ALJ for further fact-finding and analysis.

As for the question regarding purge solvent's status while in transit off-site,[53] however, we find that that solvent *is* discarded by GM, so it is a solid waste once it leaves GM's purge mixture storage tanks. GM has no further immediate or direct use (*see ABR*, 208 F.3d at 1052-53) for the solvent at its assembly facilities at that point. Instead, the company simply hopes to have as much of the used solvent as possible reconstituted into fresh solvent meeting its purge specifications so that it can purchase the new solvent product at a less expensive rate than solvent manufactured from raw materials. 5 Tr. at 258-62 (Warren);

---

[52] We are aware that GM manages purge mixture as hazardous waste once it enters the purge mixture storage tanks (which bear labels that identify them as containing "Hazardous Waste"). We note, however, that GM's witnesses explained that the company does this in part because the statute and regulations are ambiguous and the company wishes to be conservative, and also in part because the State of Michigan requires purge mixture to be treated as hazardous once it reaches the tanks. *See*, *e.g.*, 7 Tr. at 25-28 (Bates), 215 (Winkler). Given that GM is seeking through this litigation to obtain a ruling that purge solvent in purge mixture is – as a matter of law – in "continuing use" in the storage tanks and thus is not a "waste" there, we do not treat the tank labeling as dispositive of whether the material is a hazardous waste while in the storage tanks.

[53] During this appeal, GM relinquished its claim, argued before the ALJ on the basis of the RCRA regulations, that purge solvent in purge mixture is not "spent" and thus not a "waste" during transport in tanker trucks away from GM's facilities. *See supra* note 47 and accompanying text. We include an analysis of the issue here, however, because the issue is framed in the context of GM's statutory argument rather than its abandoned regulatory argument.

7 Tr. at 160-64, 198-99 (Winkler). As Jonathan Warren explained, the reclamation facilities reclaim solvent by heating purge mixture in a "thin film evaporator" to vaporize the solvent component of the mixture, which is then captured and condensed out of the mixture as clean solvent. 5 Tr. at 292-93 (Warren). That solvent then goes through a gas chromatograph, which quantifies the solvent's chemical constituents, which are then adjusted as needed to create a specific reconstituted purge solvent that meets the specifications of fresh purge solvent. *Id*. at 186-88, 257-62 (Warren).

This process reveals that reconstituted solvent is not a used material that is being directly reused, as is, in an ongoing production process, even after a temporary storage delay. Rather, it is a formerly used material that has been recovered and regenerated into a new material and then purchased and used as the new material. In our view, this fact pattern accords most closely to the facts the D.C. Circuit dealt with in *API I*, in which the court found zinc-bearing slag from steel manufacturing to be "indisputably 'discarded'" prior to being subjected to the metals reclamation process and thus part of the waste disposal problem RCRA was designed to correct. *See API I*, 906 F.2d at 741; *see also United States v. ILCO, Inc.*, 996 F.2d 1126, 1131-32 (11th Cir. 1993) (lead-acid batteries used in cars and trucks are "discarded" within the everyday sense of the word even though they are of value to a reclaimer (a lead smelter) that uses them as a feedstock in the lead smelting process; holding that "[i]t is unnecessary to read into the word 'discarded' a congressional intent that the waste in question must finally and forever be discarded * * *[; rather, i]t is perfectly reasonable for EPA to assume Congress meant 'discarded once'"). We therefore hold that the purge solvent is "discarded" by GM, in that it is "disposed of," i.e., no longer wanted by GM in its present form, no later than at the point it is removed from the company's purge mixture storage tanks. *See* H.R. Rep. No. 94-1491, at 2 (1976), *reprinted in* 1976 U.S.C.C.A.N. 6238, 6240 (the term "discarded materials" refers to, among other things, products that "have served their intended purposes and *are no longer wanted by the consumer*") (emphasis added).

C. *Exemptions*

GM argues in the alternative that even if purge mixture *is* considered to be a hazardous waste at the point it exits the paint applicators, it should not be regulated as hazardous while it is in the purge solvent recovery system because it qualifies for two exemptions from RCRA regulation: (1) the "manufacturing process unit" exemption; and (2) the "totally enclosed treatment facility" exemption. App. Br. at 54-63. The ALJ held that neither exemption applies in this case, but GM claims on appeal that she erred in so finding. We examine the arguments pertaining to each exemption in turn below.

1. *"Manufacturing Process Unit" Exemption*

First, under the RCRA regulations, hazardous waste in a "manufacturing process unit" ("MPU") is not subject to subtitle C regulation until it is removed from the unit. The regulations specify:

> A hazardous waste [that] is generated in a product or raw material storage tank, a product or raw material transport vehicle or vessel, a product or raw material pipeline, or in a manufacturing process unit or an associated non-waste-treatment-manufacturing unit, is not subject to [the hazardous waste] regulation[s] * * * until it exits the unit in which it was generated, unless the unit is a surface impoundment, or unless the hazardous waste remains in the unit more than 90 days after the unit ceases to be operated for manufacturing, or for storage or transportation of product or raw materials.

40 C.F.R. § 261.4(c). Neither the statute nor the regulations define what constitutes an MPU, a "manufacturing process," a "manufacturing unit," or "manufacturing" alone. Given such circumstances, GM and the Region have both advanced the argument that the plain meaning of the

words should be applied.[54] App. Br. at 55; Resp. Br. at 72. Their positions in this regard differ in certain respects, however.

In GM's view, determining the meaning of "MPU" in this specific context involves a "technical, engineering inquiry" most appropriately answered by people who design, build, and operate automotive paint shops. App. Br. at 55. GM asserts that it presented "overwhelming evidence" from a number of such people (including Messrs. Blair, Hresko, and Wozniak and Ms. Winkler) that the downstream equipment and piping are integral components in the painting operations, without which the continuous assembly-line production of automobiles through the paint shops would be impossible.[55] *Id*. at 55-59 (citing testimony and exhibits). GM also points out that under a Clean Air Act rule governing hazardous air emissions, the purge process components of assembly plants, including the downstream equipment and piping, are considered to be part of the paint shop.[56] *Id*. at 58 (citing 8 Tr. at 236-38, 241 (Williams)). GM contends that, consistent with these authorities, its painting operations at each assembly plant constitute "single, integrated, continuous industrial manufacturing processes" that qualify in their entireties for the MPU exemption. *Id*. at 58-59.

---

[54] The ordinary, every day meaning of "manufacturing" is "to make (as raw material) into a product suitable for use * * *"[;] to make from raw materials by hand or by machinery * * *[;] to produce according to an organized plan and with division of labor <*manufacturing* 7000 cars in one day * * *> * * *." Webster's Third New International Dictionary 1378 (Philip Babcock Gove ed., 1993).

[55] Notably, in so arguing, GM does not contend that the purge mixture storage tanks are also part of the MPU, but only the equipment and piping leading from the paint applicators to those tanks. *See* App. Br. at 55-59.

[56] In April 2004, EPA finalized its National Emission Standards for Hazardous Air Pollutants ("NESHAP") for surface coating of automobiles and light-duty trucks. *See* 69 Fed. 22,602 (Apr. 26, 2004) (codified at 40 C.F.R. pt. 63 & §§ 264.1050(h), 265.1050(g)). The NESHAP defines the term "paint shop" to include, among other things, "all areas at the facility used for storage, mixing, conveying and waste handling of coatings, thinners and cleaning materials related to the coating of new [cars and trucks]." *Id*. at 22,651 (codified at 40 C.F.R. § 63.3176).

In the Region's view, "common sense" must be employed to determine what is and is not "manufacturing." Resp. Br. at 72. The Region takes issue with GM's idea that conveying purge mixture downstream is critical to its ability to produce automobiles quickly and thus is part of automobile manufacturing, arguing that "[t]he fact that a clog in the waste conveyance lines might [adversely affect] production does not turn the waste into a product or the equipment managing the waste into part of the manufacturing process." *Id*. at 74. Instead, the Region points out that "many industries" generate waste streams that can clog sewers and tanks and asserts its belief that "EPA certainly did not intend that the many waste streams generated in manufacturing plants all across the United States[] be exempt from 'hazardous waste' regulation just because a clog or malfunction could have an impact on production at their respective facilities." *Id*. at 75-76. The Region does not address the Clean Air Act point raised by GM as a basis for interpreting "MPU" as including, in this paint shop context, the purge process and downstream conveyance system. *See id*. at 71-77.

In her Initial Decision, the ALJ examined GM's contention that EPA must be consistent between its Clean Air Act and RCRA programs, with the Agency's definition of a "paint shop" under the Clean Air Act providing relevant evidence as to the appropriate scope of an "MPU" under RCRA. Init. Dec. at 43. The ALJ rejected GM's argument, holding that Congress designed "significantly different jurisdictional mandates" for the Clean Air Act and RCRA. The ALJ noted that a wide array of sources of air pollution are subject to Clean Air Act regulation, including manufacturing and waste disposal process sources, whereas "RCRA's jurisdiction is limited to regulating waste activity" only. *Id*. at 44. For this reason, the ALJ found the Agency regulation defining "paint shop" for Clean Air Act purposes to be unpersuasive in helping interpret the meaning of "MPU" under RCRA. *Id*. The ALJ also held that GM does not manufacture anything downstream of the paint applicators, but only conveys waste to storage tanks, and thus those portions of the assembly plants are not part of an MPU. *Id*. at 41-42.

The ALJ's analysis presupposes that purge solvent in purge mixture is a "spent material" and thus a "waste" after it exits the paint

applicators and travels through the downstream equipment and piping. As explained in Part II.A.2.c.vi above, we concluded that purge solvent would ordinarily be considered "spent" after it exited the paint applicators (or mini-purge pots at Lake Orion), but we also remanded the matter to the ALJ for further analysis and fact-finding, as necessary, to determine whether purge solvent is in legitimate continuing use in the latter portions of GM's purge system. If purge solvent is found to be in legitimate continuing use, then the solvent would not be considered "spent" until the continuing use is concluded. Such a finding would not negate the ALJ's determination that "the downstream purge mixture system does not produce a product," but it could affect the ALJ's finding that "GM is managing waste" there. Since we do not know whether this would alter her MPU exemption analysis in some way, we remand this MPU issue, along with the earlier "legitimate continuing use" issues, to the ALJ for such further consideration as may be required.

2. *"Totally Enclosed Treatment Facility" Exemption*

Second, under the RCRA regulations, hazardous waste in a "totally enclosed treatment facility" ("TETF") is exempt from subtitle C regulation. *See* 40 C.F.R. §§ 264.1(g)(5), 265.1(c)(9), 270.1(c)(2)(iv). The regulations define "totally enclosed treatment facility" as:

> [A] facility for the treatment of hazardous waste [that] is directly connected to an industrial production process and [that] is constructed and operated in a manner [that] prevents the release of any hazardous waste or any constituent thereof into the environment during treatment. An example is a pipe in which waste acid is neutralized.

40 C.F.R. § 260.10. In the course of issuing emission standards for process vents and equipment leaks at facilities regulated under subtitle C, EPA explained:

> The key characteristic of a totally enclosed treatment facility is that it does not release any hazardous waste or

> constituent of hazardous waste into the environment during treatment. Thus, if a facility leaks, spills, or discharges waste or waste constituents, or emits waste or waste constituents into the air during treatment, it is not a totally enclosed treatment facility within the meaning of these regulations.

Hazardous Waste Treatment, Storage, and Disposal Facilities – Organic Air Emission Standards for Process Vents and Equipment Leaks, 55 Fed. Reg. 25,454, 25,467 (June 21, 1990).

In her Initial Decision, the ALJ cited the foregoing provisions and noted that evidence in the record indicates that GM routinely emits volatile organic compounds through vents in its purge pots and purge mixture storage tanks and on rare occasions experiences overflows or leaks of purge mixture from purge pots or other downstream equipment or piping. Init. Dec. at 44-45 (citing testimony and evidence of emissions and leaks). In light of this evidence, the ALJ held that the GM's purge solvent recovery system is not "totally enclosed" and thus does not qualify for the TETF exemption. *Id.*

On appeal, GM concedes that the facts underlying the ALJ's holding in this regard are true. App. Br. at 59, 61. GM nonetheless argues that the TETF exemption is "not lost" because EPA intended it to apply to pipes, tanks, and tank-like structures, and, GM contends, all such structures incorporate vents and require periodic opening for routine maintenance. *Id.* at 61. GM claims that if a facility's use of pressure relief devices and engagement in maintenance activities "rendered the exemption inapplicable, then the TETF exemption would never apply to any tanks or pipes," contrary to EPA's intent. *Id.*

GM is mistaken in so arguing. As early as 1983, EPA provided general thoughts that are directly applicable to the point raised here by GM. EPA explained:

> A totally enclosed facility must be enclosed on all sides. A tank or similar equipment must have a cover

[that] would eliminate gaseous emissions and spills. However, many tanks incorporate vents and relief valves for either operating or emergency reasons. Such vents must be designed to prevent overflows of liquids and emissions of harmful gases and aerosols, where such events might occur through normal operation, equipment failure, or process upset. This can often be accomplished by the use of traps, recycle lines, and sorption columns of various designs to prevent spills and gaseous emissions. If effectively protected by such devices, a vented tank would qualify as a [TETF].

When considering protective devices for tank vents, the question arises as to whether the protective device is itself adequate. The test involves a judgment as to whether the overflow or gaseous emission passing through the vent will be prevented from reaching the environment. For example, an open catchment basin for overflows is not satisfactory if the hazardous constituents in the waste may be emitted to the air. Similarly, it may also not be satisfactory if it is only large enough to hold the tank overflow for a brief period before it also overflows. However, even in this situation, alarm systems could be installed to ensure that the capacity of the catchment basin is not exceeded. Where air emissions from vents or relief valves are concerned, if the waste is non-volatile or the emissions cannot contain gases or aerosols [that] could be hazardous in the atmosphere, then no protective devices are necessary. An example might be a pressure relief valve on a tank containing non-volatile wastes. Where potentially harmful emissions could occur, then positive steps must be taken. For example, the vent could be connected to an incinerator or process kiln. Alternately, a sorption column might be suitable if emission rates are low, the efficiency of the column approaches 100 percent, and alarms or other safeguards are available so

> that the upset causing the emission will be rectified before the capacity of the column is exceeded. Scrubbers will normally not be sufficient because of their tendency to malfunction and efficiencies typically do not approach 100 percent.

CX 141-F encl. at 2-3 (Letter from John P. Lehman, Office of Solid Waste & Emergency Response, U.S. EPA, to Duane W. Marshall, Regulatory Affairs Program Manager, NCASI, OSWER Directive No. 9432.1983(01), *Regulatory Clarification of Totally Enclosed Treatment Facility* encl. at 2-3 (Feb. 18, 1983)), *available at* 1983 WL 190415, at *2. This guidance plainly indicates that EPA intended the TETF exemption to be applicable only to facilities that rigorously control their pollutant releases by taking positive steps to ensure that any and all possible emissions or discharges – be they accidental, routine, or maintenance-related – are captured and treated rather than released into the environment. *See id*. at 4, *available at* 1983 WL 190415, at *4 (a "totally enclosed facility" must, among other things, "[p]ose negligible potential for escape of constituents to the environment except through natural calamities or acts of sabotage or war"); *accord* CX 141-B at 2 (Letter from Marcia E. Williams, Director, Office of Solid Waste & Emergency Response, U.S. EPA, to Anthony Sassoon, Ohio EPA, OSWER Directive No. 9432-1987(03), at 2 (May 1, 1987)) (treatment units used to dewater hazardous wastes could release volatile organic compounds into the environment and thus do not meet the "totally enclosed" criterion of the TETF exemption); CX 141-C at 2 (Letter from J. Winston Porter, Ass't Adm'r, Office of Solid Waste & Emergency Response, U.S. EPA, to Ridgeway M. Hall, Jr., Crowell & Moring, OSWER Directive No. 9432.1986(06), at 2 (Feb. 6, 1986)) (wet-air oxidation system that emits constituents into air during treatment is not "totally enclosed" and thus does not qualify for TETF exemption).

As the Region points out, the TETF exemption is an affirmative defense, Resp. Br. at 77, and therefore GM is responsible for carrying the burden of establishing its applicability in this context. *See* 40 C.F.R. § 22.24 ("respondent has the burdens of presentation and persuasion for any affirmative defenses"); 1985 Preamble at 642 (noting that entity

claiming its secondary material is not a waste because the material falls within a regulatory exception is raising an affirmative defense, and the entity must bear the burdens of producing evidence and of persuasion with respect to that defense); *see supra* Part II.A.3.c (citing cases). However, GM has not directed us to any evidence in the record showing that the vented emissions from its purge pots or purge mixture storage tanks are controlled by being attached to sorption columns, incinerators, or other pollutant control devices. *See* App. Br. at 59-63. Similarly, GM has not directed us to any evidence that the rare spills or leaks of purge mixture from purge pots, pipelines, or storage tanks are captured in containment devices or by other mechanisms that are adequate to ensure hazardous constituents do not escape into the environment. *See id*. Instead, GM merely argues that routine releases from pressure relief vents and various maintenance operations are part of "good engineering design" and should not foreclose TETF exemption applicability. *See id*. at 61. This is not enough to establish that GM's facilities are "totally enclosed" to the degree necessary to qualify for the exemption. *Cf*. CX 141-B at 2 (OSWER Directive No. 9432-1987(03)); CX 141-C at 2 (OSWER Directive No. 9432.1986(06)); CX 141-F at 2-3 (OSWER Directive No. 9432.1983(01)). For these reasons, we find no clear error in the ALJ's ruling that the TETF exemption is not available to GM.

D. *Alleged Inconsistency in Agency Interpretation of "Spent Material"*

Next, GM argues that EPA arbitrarily changed its long-standing interpretation of "spent material," as applied to purge solvent used in automobile painting operations, without engaging in notice-and-comment rulemaking in accordance with the Administrative Procedure Act ("APA"). *See* App. Br. at 63-69. GM claims that from the time EPA promulgated its definition of "spent material" in 1985 until the time it issued the Cotsworth Letter in July 1997, no federal or state regulatory authority ever took the position – either in writing or through enforcement action – that purge solvent in purge mixture was "spent" and thus a "waste" at the point it exited a paint shop's spray applicators. *See id*. at 65-66. However, with the advent of the Cotsworth Letter in 1997, EPA and delegated states began to categorize purge solvent as a "waste" upon exit from the applicators, even though the regulatory

definitions and paint operation activities in question had not changed in any relevant respect. GM contends that enforcement personnel made these new "spent" and "waste" determinations in an inconsistent manner, via RCRA compliance inspections at individual facilities, finding purge solvent to be a hazardous waste upon its exit from paint applicators at some assembly plants but not at others. *Id*. at 66-68 (discussing RCRA inspections conducted at several GM, Ford, and Honda plants between 1997 and 2004).

GM cries procedural foul in light of its perception that EPA was silent for a dozen or so years (1985-1997) on this matter and then abruptly embarked in 1997 on a strict but inconsistent track of enforcement for the "new" RCRA violations. GM asserts that this pattern of behavior, and the ALJ's sanctioning thereof in her Initial Decision, cannot be reconciled with basic principles of administrative law requiring fair notice and due process. *See id*. at 65-69. GM claims that EPA failed to provide a reasoned basis for its change in interpretation and failed to formalize the new interpretation through the notice-and-comment rulemaking process. *Id*. at 69 (citing *Alaska Prof'l Hunters' Ass'n v. FAA*, 177 F.3d 1030 (D.C. Cir. 1999)). GM concludes by suggesting that in excusing EPA's purportedly inconsistent actions as appropriate exercises of enforcement discretion, the ALJ erred and thus should be reversed by this Board. *See id*. (citing Init. Dec. at 57).

In response, the Region does not dispute the fact that its new understanding of "spent material" in the assembly plant painting context unfolded beginning in 1997 with the Cotsworth Letter and continued along to the 2000 Sasseville Memo and subsequent letters to the States of Michigan and Ohio in 2001. *See* Resp. Br. at 91-95. The Region insists, however, that, once established in the 1997-1998 time frame, the Agency consistently determined purge solvent in purge mixture to be "spent" and thus a "waste" at the point it exits the paint applicators. The Region argues that the specific inconsistencies GM points to in the inspection and enforcement records can be explained away as flowing from substantial differences in individual facility configurations, downstream handling of purge solvents, or inspection scope or thoroughness, and not from arbitrary reinterpretations of the RCRA

regulations governing the point of generation of a "waste," as GM alleges. *Id*. at 86-91. Far more telling than any enforcement absences or variations in particular cases is, in the Region's view, the fact that all written Agency guidance on this issue since the Cotsworth Letter has articulated EPA's understanding that, for assembly plants configured like the three facilities at issue in this case, purge solvent is "spent" after being used to clean paint applicators. *Id*. at 91-95.

Under the APA, regulatory agencies are required to engage in a rulemaking process, with notice in the *Federal Register* and a public comment period, when proposing to issue, modify, or repeal so-called "substantive" (or "legislative") rules that implement federal statutes. 5 U.S.C. §§ 552(a)(1)(D)-(E), 553(b); *see In re CWM Chem. Servs., Inc.*, 6 E.A.D. 1, 15 (EAB 1995). This process is intended to ensure that the regulated community has prior notice of and an opportunity to comment on regulations that will be legally binding upon them. 5 U.S.C. § 552(a)(1); *see Ohio Dep't of Human Servs. v. HHS*, 862 F.2d 1228, 1233 (6th Cir. 1998) [hereinafter *Ohio DHS*]; *CWM Chem.*, 6 E.A.D. at 14-15. The APA establishes several exceptions to this process, including one that dispenses with the notice-and-comment requirement for agency issuance of "interpretative rules, general statements of policy, or rules of agency organization, procedure, or practice."[57] 5 U.S.C. § 553(b)(A).

---

[57] As a general matter, courts have recognized that regulatory agencies may make certain minor clarifications to their interpretations of ambiguous regulations by means other than formal rulemaking proceedings, as long as conditions such as reasonableness and fair notice are observed. *See*, *e.g.*, *Paralyzed Veterans of Am. v. D.C. Arena L.P.*, 117 F.3d 579, 584-89 (D.C. Cir. 1997), *cert. denied sub nom. Pollin v. Paralyzed Veterans of Am.*, 523 U.S. 1003 (1998); *Gen. Elec. Co. v. EPA*, 53 F.3d 1324, 1328-34 (D.C. Cir. 1995). Importantly, in this case, GM had actual notice of EPA's position prior to the Agency's inspection of the Pontiac, Moraine, and Lake Orion facilities and subsequent filing of an administrative complaint alleging RCRA violations at those facilities. *See*, *e.g.*, 7 Tr. at 17-20, 30-31 (Bates), 111-12 (Winkler); *see also Gen. Elec.*, 53 F.3d at 1329 (observing that "[a]lthough [an] agency must always provide 'fair notice' of its regulatory interpretations to the regulated public, in many cases the agency's pre-enforcement efforts to bring about compliance will provide adequate notice").

The first of these items – i.e., "interpretative rules" – has been defined as consisting of clarifications or explanations of existing statutes or rules that are issued by an agency "'to advise the public of the agency's construction of the statutes and rules [that] it administers.'" *Ohio DHS*, 862 F.2d at 1233 (quoting U.S. Dep't of Justice, *Attorney General's Manual on the Administrative Procedure Act* 30 n.3 (1947)); *CWM Chem.*, 6 E.A.D. at 15 n.22 (quoting same). Interpretative rules generally only "remind" affected parties of existing legal duties with which (in the agency's view) they are obliged to comply, whereas substantive rules actively create new laws, rights, or duties. *See*, *e.g., Gen. Motors Corp. v. Ruckelshaus*, 742 F.2d 1561, 1565 (D.C. Cir. 1984) (citing cases), *cert. denied sub nom. Gen. Motors Corp. v. Thomas*, 471 U.S. 1074 (1985); *see also In re City Indus., Inc.*, 1 E.A.D. 928, 931 n.11 (CJO 1984). Put another way, substantive rules "'grant rights, impose obligations, or produce other significant effects on private interests," while interpretative rules do not "'foreclose alternative courses of action or conclusively affect rights of private parties.'" *Ohio DHS*, 862 F.2d at 1233 (quoting *Batterton v. Marshall*, 648 F.2d 694, 701-02 (D.C. Cir. 1980)).

In practice, it is not always a simple matter to distinguish between interpretative and substantive rules. *See Gen. Motors*, 742 F.2d at 1565 ("the distinction between legislative and nonlegislative rules has been described as 'enshrouded in considerable smog'") (quotations omitted); *Batterton*, 648 F.2d at 702-03 (rule categories have "fuzzy perimeters") (quotation omitted). However, the principles set forth in the foregoing paragraph can serve as helpful guides. In the present case, the Agency views set forth in the Cotsworth Letter and Sasseville Memo appear to best fit into the category of "interpretative rule," in light of the fact that they explain EPA's understanding of how RCRA subtitle C should apply to paint purging activities in assembly plants. They are an attempt by the Agency to *apply* the law – as it presently exists and as the Agency understands it – to the specific facts that the Agency believes are transpiring in the paint shops, rather than to *change* the law to something new and different. The ALJ implicitly held as much by sanctioning the Region's application of the Cotsworth/Sasseville documents to the painting operations at GM's three assembly plants, finding, in essence,

that they warranted a measure of deference despite their lack of promulgation in accordance the APA's notice-and-comment provisions. *See* Init. Dec. at 55-58.

We are unpersuaded that EPA necessarily held a prior interpretation of its regulations that was inconsistent with the interpretation it began to advance in the late 1990s. The evidence GM offers to establish this point describes a different enforcement outcome at automotive manufacturing facilities, stretching from the onset of the new solid waste rules in January 1985 through the late 1990s/early 2000s, but the Region plausibly explains this different outcome as deriving from factual distinctions, including differences in facility configurations or practices and/or differences in inspection scope or thoroughness. *See* Resp. Br. at 85-91. Significantly, once the regulated community raised the matter with EPA overtly, by means of the various RCRA applicability inquiries, the Agency explicitly provided its interpretation of "spent material" in the paint shop context by issuing the Cotsworth Letter, Sasseville Memo, and related pronouncements. And once the Agency provided its explicit interpretation, it did not "flip-flop" back and forth on its understanding of "spent material" in the painting context, as GM contends, but rather forged ahead with the process of educating its inspectors and the regulated community of its interpretation.

Accordingly, we find ourselves in agreement with the ALJ and therefore reject GM's contention that EPA was required to engage in notice-and-comment rulemaking with respect to the ideas set forth in the Cotsworth, Sasseville, and related documents. In our view, the ideas set forth therein qualify as "interpretative rules" that are excepted from the rulemaking process by APA § 553(b)(A).

E. *State of Michigan's Determination of Point of Generation of "Waste"*

As one final argument, GM points out that officials from the State of Michigan have issued letters and opinions articulating the State's view that purge solvent in purge mixture is not a RCRA-regulated "waste" upstream of the purge mixture storage tanks. App. Br. at 69-74.

GM quotes language from a letter it received regarding its Lansing assembly plant, in which the State mentions EPA's continued use of solvents policy and notes that some aspects of GM's operations support the idea that purge solvent is still being used in downstream systems, including that: (1) purge solvent is "'apparently specifically designed'" to suspend paint solids and allow flow through the lines; and (2) purge mixture collection is a "'necessary process uniquely tied to painting.'" *Id*. at 70 (quoting RX 21, at 1 (Letter from Arthur R. Nash Jr., Deputy Director, Michigan Department of Environmental Quality, to Patrick J. McCarroll, GM Legal Staff at 1 (Feb. 14, 2001))). GM also references a friend-of-the-court brief Michigan filed in support of the company in a case heard by the U.S. Court of Appeals for the District of Columbia Circuit.[58] *Id*. at 70-71. In that brief, Michigan explained that, in its view, "purge solvents that remain continuously in-use in the paint purge piping system need not be regulated under Michigan's hazardous waste scheme; the solvents are not considered solid wastes after they exit the paint spray guns by virtue of the continued useful purpose they serve in the purge piping system." RX 182A at 9 (Final Brief for *Amicus Curiae* State of Michigan in Support of Petitioner GM, *GM Corp. v. U.S. EPA*, Docket No. 02-1242, at 9 (D.C. Cir. filed Dec. 18, 2003)).

In light of the fact that Michigan is authorized to administer the portions of RCRA relevant to this case, GM contended below that EPA is bound by the State's interpretation of the law with respect to the

---

[58] In this case, GM petitioned the D.C. Circuit for review of letters EPA's enforcement office sent to it and other car and truck manufacturers in 2002. The letters set forth the Agency's interpretation that purge solvents exiting automotive spray painting operations are "spent" and thus hazardous wastes subject to regulation under 40 C.F.R. parts 262, 265 subparts J, BB, and CC, and 270. The letters proposed a settlement offer to address past and continuing RCRA violations of these kinds and attempted to open a path for settlement negotiations. *See* CX 19 (Letter from Steven Shimberg, Associate Assistant Administrator, Office of Enforcement & Compliance Assurance, U.S. EPA, to Patrick J. McCarroll, Esq., General Motors Corp. (May 7, 2002)). GM petitioned for review on the ground that the letters constituted "final agency action" regarding the RCRA classification of purge solvents in the automobile manufacturing industry. The D.C. Circuit dismissed GM's petition for lack of jurisdiction, holding that the letters are not final agency action subject to review in that forum. *Gen. Motors Corp. v. EPA*, 363 F.3d 442, 453 (D.C. Cir. 2004).

Pontiac and Lake Orion assembly plants. The ALJ rejected this argument on two primary grounds, finding: (1) it is well settled that EPA shares dual enforcement authority with RCRA-authorized states, so the Agency possesses legitimate jurisdiction to bring these enforcement actions in Michigan; and (2) EPA's authorization of Michigan's RCRA program consists of approval of the State's RCRA regulations, not approval of the State's interpretations of those regulations, so the Agency is free to depart from Michigan's view of the law if it disagrees with that view. Init. Dec. at 58-59 (citing cases). The ALJ also rejected GM's appeal to the authority of the Seventh Circuit Court of Appeals's decision in *Northside Sanitary Landfill, Inc. v. Thomas*, 804 F.2d 371 (7th Cir. 1986), as defining the extent of EPA enforcement jurisdiction in authorized states, noting simply that the present case does not arise within the Seventh Circuit and thus *Northside* is not binding on these proceedings. Init. Dec. at 58.

GM reargues all of these points on appeal, claiming that the Board should overturn the ALJ's decision in these respects. *See* App. Br. at 69-74. In so doing, GM concedes that EPA possesses dual enforcement authority in Michigan, in tandem with the State. *Id*. at 69-70, 73. However, GM asserts that "EPA is not entitled to substitute its interpretation of Michigan's EPA-authorized, *state-law*, hazardous waste program for Michigan's interpretation of its own laws. As an authorized state, Michigan, not EPA, is responsible for interpreting and administering its authorized state regulations and making site-specific regulatory determinations." *Id*. at 72. To support this position, GM cites the Seventh Circuit's decision in *Northside*, in which the court suggested that EPA does not have legal authority to interpret and enforce RCRA provisions in authorized states. *Id*. at 73-74 (citing 804 F.2d at 381-82). GM also cites a statutory provision that allows EPA to withdraw authorization of all or part of a state's hazardous waste program if the state's implementation of RCRA is less restrictive than EPA's approach. *Id*. at 74 (citing RCRA § 3006(e), 42 U.S.C. § 6926(e)). On these bases, GM argues that EPA must defer to an authorized state's determinations as to RCRA applicability, and if the Agency does not wish to so defer, its "sole remedy" is to "deauthorize" the state's program, put a federal program in its place, and then enforce that federal law against the

regulated community in the state. *Id*. at 72-74 (citing 8 Tr. at 247 (Williams)).

We are unpersuaded that GM is correct in this regard. In response to GM's appeal, the Region cited a number of federal and Board cases that identify a sole prerequisite for Agency enforcement of RCRA in an authorized state – i.e., *notice* to that state prior to initiation of the enforcement action. Resp. Br. at 101-04, 108 (citing *United States v. Power Eng'g Co.*, 303 F.3d 1232, 1237 (10th Cir. 2002), *cert. denied*, 538 U.S. 1012 (2003); *United States v. Conservation Chem. Co.*, 660 F. Supp. 1236, 1244-45 (N.D. Inc. 1987); *In re Gordon Redd Lumber Co.*, 5 E.A.D. 301, 308 (EAB 1994); *In re S. Timber Prods., Inc.*, 3 E.A.D. 371, 376-78 (JO 1990); *In re Martin Elecs., Inc.*, 2 E.A.D. 381, 385 (CJO 1987)); *see* RCRA § 3008(a)(2), 42 U.S.C. § 6928(a)(2) (notice requirement). These cases indicate that, contrary to GM's view, Michigan's interpretation of RCRA statutory and regulatory requirements – while "relevant" and due "such weight as [the State's] analysis intrinsically warrants" – is "neither dispositive nor preclusive of EPA's independent authority and obligation" to evaluate whether a company such as GM is in compliance with the RCRA requirements. *S. Timber*, 3 E.A.D. at 378 (holding that EPA has jurisdiction to bring RCRA enforcement action in Mississippi, an authorized state, and is not bound by Mississippi's determination that a surface impoundment is "clean closed" and thus that enforcement is not warranted); *accord Conservation Chem.*, 660 F. Supp. at 1244-45 (discussing "obvious congressional intent" to establish dual RCRA enforcement scheme to ensure federal enforcement can occur in authorized states that fail to uphold minimum nationally applicable requirements); *cf*. *Gordon Redd*, 5 E.A.D. at 316-17 (noting that if a RCRA-authorized state were to choose to "excuse" a party's failure to comply with RCRA regulations, that state's choice would not bind EPA and prevent the Agency from enforcing those regulations).

GM offers *Northside* as a counterweight to these rulings, but that case dealt with issues of standing and ripeness, not with questions regarding the Agency's authority to enforce an authorized state's RCRA subtitle C regulations. *See Northside*, 804 F.2d at 381-83 (finding no

injury to landfill company caused by EPA comments on the scope of landfill closure, which were made in the course of denying the company's RCRA permit application). Upon review of the Seventh Circuit's decision in that case, we agree with the Region's assessment that the court's comments regarding EPA enforcement authority are dicta and are not controlling in the present context. *See* Resp. Br. at 107-08 (citing *Conservation Chem.*, 660 F. Supp. at 1243-45 (noting that *Northside* did not involve a RCRA § 3008 enforcement action and thus cannot be construed as a broad prohibition of EPA's ability to enforce RCRA in authorized states), and *S. Timber*, 3 E.A.D. at 378 (adopting ALJ's jurisdictional analysis, which held that *Northside* is not authoritative regarding whether EPA may enforce RCRA in an authorized state where that state has determined no RCRA violation exists)); *accord In re CID-Chem. Waste Mgmt. of Ill., Inc.*, 2 E.A.D. 613, 619 (CJO 1988) ("[a]ny dicta in the Seventh Circuit's decision suggesting that EPA has no authority to enforce state RCRA laws is clearly contrary to [RCRA § 3008(a)] and has no precedential value").

As the Region points out, if EPA were obliged to defer to Michigan's interpretation in the manner GM asserts, or to Ohio's interpretation for that matter (which could in theory differ from Michigan's), the Agency would be unable to establish and maintain the "federal floor" of minimum requirements contemplated by Congress for state-authorized programs, *unless* the Agency went so far as to withdraw authorization for part or all of the offending state program. Resp. Br. at 108-10. Withdrawal is not, however, the only remedy EPA may deploy in circumstances such as these. According to the U.S. Court of Appeals for the Tenth Circuit:

> Withdrawal of authorization for a state program is an "extreme" and "drastic" step that requires the EPA to establish a federal program to replace the cancelled state program. *Waste Mgmt., Inc. v. EPA*, 714 F. Supp. 340, 341 (N.D. Ill. 1989). Nothing in the text of the statute suggests that such a step is a prerequisite to EPA enforcement or that it is the only remedy for inadequate enforcement.

*Power Eng'g*, 303 F.3d at 1238-39.[59]

Similarly, nothing in the text of the statute suggests that when EPA authorizes state RCRA regulations to operate in lieu of federal rules, the Agency also necessarily authorizes all of the state's *interpretations* or *applications* of its regulations. *See* RCRA § 3006(b), 42 U.S.C. § 6926(b). In the event that EPA disagrees with a state's interpretation of authorized regulations as applied to a specific set of facts, EPA retains its authority to act to correct the interpretation through an enforcement action, provided only that it first notifies the state. *See* RCRA § 3008(a)(2), 42 U.S.C. § 6928(a)(2); *In re Pyramid Chem. Co.*, 11 E.A.D. 657, 669 (EAB 2004) (noting that EPA authorization of a state RCRA program does not divest the Agency of authority to enforce any requirement of that authorized state program *plus* any federal requirement that is not part of the authorized state program); *see also Power Eng'g*, 303 F.3d at 1237-38 (agreeing with EPA that RCRA § 3006(b) "simply provides that once authorization has taken place, state requirements replace federal requirements, because the state requirements may be *more* stringent," and less stringent state application of the requirements does not bar federal action) (emphasis added). This principle has particular force in cases where, as here, the state regulation closely mirrors the federal regulation.

For these reasons, we reject GM's challenge to the ALJ's decision on this topic and affirm her ruling that the State of Michigan's

---

[59] *See also* Thomas A. Benson, *Perfect Harmony: The Federal Courts Have Quarantined* Harmon *and Preserved EPA's Power to Overfile*, 28 Wm. & Mary Envtl. L. & Pol'y Rev. 885, 909-10 (Spring 2004) (noting that EPA only has "two tools to ensure that states diligently enforce" RCRA: (1) withdrawal of state authorization, and (2) filing separate federal actions in individual cases; "[t]he former would be prohibitively expensive for EPA and is not seen as a serious threat," so the latter is "the only federal leverage that prevents states from entering into 'sweetheart deals' with polluters"); Markus G. Puder & John A. Veil, *Overfiling in the Cooperative Federalism Balance: A Search Forever Incomplete and Incompletable*, 29 Colum. J. Envtl. L. 119, 140-42 (2004) (discussing arguments for and against filing federal actions, including the idea that such filing "represents a far more proportional response to federal-state enforcement disputes" than other possible responses, especially that of "the ultimate hammer of program withdrawal").

opinion of the law does not automatically bar EPA from enforcing a contrary understanding within that State.[60]

## III. *CONCLUSION*

In conclusion, we remand the case to the ALJ for further proceedings consistent with this opinion, while affirming some of the ALJ's findings, as summarized in the following paragraphs.

(1) *The Regulatory Argument – When Is Purge Solvent "Spent"?* We hold that the ALJ committed clear error in certain aspects of her interpretation of the clause "the purpose for which [a material] was produced" in the definition of "spent material." Upon review of the regulatory text, regulatory history, and EPA interpretive guidance documents, we hold that the Agency intended the "purpose" clause to have a singular character, not a multiple character, *see supra* Part II.A.2.c.i, and that the ALJ clearly erred in adopting a "predominant purpose" test for determining when a material is "spent." *See supra* Part II.A.2.c.ii.

We hold further that EPA intended a material's "purpose" to be construed as follows. First, under ordinary circumstances, the *initial deployment or application of a batch of material* will serve as the touchstone for determining "the purpose for which [that material] was produced," per *Howmet*, *see supra* Part II.A.2.c.iii, and, at the end of the initial deployment or application, the material will be considered "spent" under 40 C.F.R. § 261.1(c)(1). *See supra* Parts II.A.2.c.iv-.v. Second, in the 1985 preamble to the solid waste regulations, the Agency created the "continued use" policy, which acts as an exception (or "but for" test) to the ordinary "purpose"/"spent" analysis. If the conditions of the exception apply, the exception broadens "the purpose for which [a material] was produced" to include not just the initial deployment or

---

[60] In so holding, we also reject GM's appeal of the ALJ's decision to exclude RX 206 from the record in this case on the basis of lack of probative value. *See* App. Br. at 71 n.30. The Region argues, rightly in our view, that the exhibit is cumulative of evidence already introduced at the hearing. *See* Resp. Br. at 107 n.125.

application of the material but also certain continued uses of the material.

This continued use exception is comprised of two primary conditions. Condition number one provides that the continued use of the material must be *similar to* or *consistent with* the initial deployment or application. Condition number two provides that the continued use of the material must be a *legitimate* further use of the previously used material rather than an improper or disguised means of disposing of a waste material. *See supra* Parts II.A.2.c.i, .v-.vi. The latter condition, "legitimacy," is evaluated by means of a three-part test EPA set forth in an applicability determination issued to Safety-Kleen Corporation in 1998. The test, grounded in the 1985 preamble, provides that a continuing use of a partially depleted material will be considered "legitimate" if it is: (1) *effective*; (2) *necessary*; and (3) *not in excess of the quantity that would normally be required to achieve the task*. *See supra* Part II.A.3.a. We hold that a continued use deemed to be similar/consistent and legitimate broadens the "purpose for which [the material] was produced" to include that continued use until the use is concluded. *See supra* Parts II.A.2.c.v-.vi. The burdens of pleading and proving the existence of a qualifying continued use rest upon the party attempting to invoke the exception. *See supra* Part II.A.3.c.

As to this specific case, we hold that the "purpose for which GM's various purge solvents are produced" is to solubilize and suspend specific automotive paints/coatings in assembly plant paint manifolds and spray applicators. *See supra* Part II.A.2.c.iv. At the point purge solvent exits the spray applicators (or the mini-purge pots in Lake Orion's case), and absent a qualifying continuing use, it becomes a material that "has been used and as a result of contamination can no longer serve the purpose for which it was produced without processing." *See supra* Part II.A.2.c.vi. The possible qualifying continuing uses at GM's assembly plants include: (1) moving purge mixture downstream from the paint manifolds and applicators all the way through the purge pots, piping, and equipment of the purge solvent recovery system; and (2) keeping purge mixture sufficiently fluid in the purge mixture storage tanks. Whether either of these two purported continuing uses

appropriately falls within the scope of "the purpose for which [purge solvent] was produced" turns on whether they meet the similarity/consistency and legitimacy criteria for continued use. *See supra* Part II.A.2.c.v.

With respect to the first purported continuing use, the Board's analysis incorporates an assumption that this alleged further use of purge solvent is sufficiently *similar to* or *consistent with* the solvent's initial deployment to fulfill the first condition of qualifying as a continued use under EPA's continued use policy. Region 5 acknowledges that purge solvent in purge mixture retains its ability to solubilize and suspend paint solids in the downstream purge solvent recovery systems and does so at GM's three facilities. However, nothing precludes the ALJ, on remand, from examining the question whether this purported further use of purge solvent is sufficiently similar to or consistent with the solvent's initial deployment as a painting equipment cleaner to qualify as a continued use under EPA's policy. *See supra* Part II.A.3.c.vi (note 49). As to the second condition for qualifying as a continuing use – i.e., legitimacy – the Board has questions about the ALJ's findings that force alone is responsible for cleaning the downstream purge pots, equipment, and piping and properly transporting purge mixture to the storage tanks. We remand the questions of "effectiveness" and "necessity" to the ALJ for reconsideration of the evidence in the record, including the witness testimony we specifically highlight in our analysis above, along with further fact-finding as warranted. *See supra* Parts II.A.3.c.i-.ii, .iv. We also remand the question of what "quantity" of purge solvent in purge mixture is needed to move waste paint solids downstream, which is not addressed in the existing record and thus will require new fact-finding by the ALJ. *See supra* Part II.A.3.c.iv. Upon completion of the factual record, the ALJ must render an ultimate decision on the "legitimacy" of GM's alleged downstream continuing use.

With respect to the second purported continuing use, the Board's analysis also assumes that this further purported use is sufficiently similar to or consistent with the solvent's initial deployment as a painting equipment cleaner to satisfy the first condition of qualifying as a continued use under EPA's continued use policy. *See supra*

Part II.A.3.c.vi (note 49). However, nothing precludes the ALJ, on remand, from examining the question whether this purported further use of purge solvent is sufficiently similar to or consistent with the solvent's initial deployment as a painting equipment cleaner to qualify as a continued use under EPA's policy. As to the second condition for qualifying as a continuing use, the Board again has questions pertaining to the three legitimacy prongs for this "use" and finds that they are not sufficiently answered by the evidence presently in the record. We therefore direct the ALJ to conduct new fact-finding on the effectiveness, necessity, and quantity of purge solvent "used" in the purge mixture storage tanks. The ALJ must then employ the new facts to make a determination as to the legitimacy of this alleged continued use. *See supra* Part II.A.3.c.v.

(2) *The Statutory Argument – When Is Purge Solvent "Discarded"?* We remand this issue to the ALJ for further consideration in light of the new facts collected for the continuing use analysis, as set forth above. A determination as to whether used purge solvent exiting the paint applicators is "discarded" – i.e., "disposed of," "abandoned," or "thrown away" – cannot be made, consistent with D.C. Circuit precedent that interprets this statutory term, until the continuing use questions have been fully explored. *See supra* Part II.B.

(3) *Exemptions*. We also remand the "manufacturing process unit" exemption analysis to the ALJ for reconsideration in accordance with the existing record and any new facts that will be collected for the continuing use analysis. *See supra* Part II.C.1. Furthermore, we affirm the ALJ's holding that the "totally enclosed treatment facility" exemption is not available to GM for its downstream purge recovery systems or its purge mixture storage tanks. *See supra* Part II.C.2.

(4) *Alleged Inconsistency in Agency Interpretation of "Spent Material."* We agree with the ALJ that EPA was not obligated to engage in public notice-and-comment rulemaking prior to clarifying its interpretation of "spent material" in the context of automotive assembly plant uses of purge solvent. Once established in the 1997-1998 time frame, the Agency consistently hewed to the line that purge solvent in

purge mixture is "spent" and thus a "waste" at the point it exits the paint applicators. We hold that the Agency's applicability determinations, which conveyed the new interpretation to the public, qualify as "interpretative rules" that are excepted from the rulemaking process under the Administrative Procedure Act. *See supra* Part II.D.

(5) *State of Michigan Determination of Point of Generation of "Waste."* Finally, we affirm the ALJ's ruling that the State of Michigan's interpretation of RCRA – i.e., that the point of generation of a regulated "waste" occurs upon entrance of purge mixture into the purge mixture storage tanks – does not bar EPA from enforcing a contrary understanding within that State's boundaries. *See supra* Part II.E.

So ordered.

## CERTIFICATE OF SERVICE

I hereby certify that copies of the foregoing **Remand Order** in the matter of General Motors Automotive – North America, RCRA (3008) Appeal No. 06-02, were sent to the following persons in the manner indicated:

**By Certified Mail, Return Receipt Requested:**

John Kyle III, Esq.
Michael T. Scanlon, Esq.
Barnes & Thornburg, LLP
11 South Meridian Street
Indianapolis, Indiana 46204
telephone: (317) 236-1313
facsimile: (317) 231-7433

Michelle T. Fisher, Esq.
General Motors Corporation
Cadillac Building
Mail Code 480-206-116
Warren, Michigan 48243
telephone: (586) 575-4053
facsimile: (586) 575-2207

Robert J. Martineau, Jr., Esq.
Edward M. Callaway, Esq.
Michelle B. Walker, Esq.
Waller Lansden Dortch & Davis, LLP
511 Union Street, Suite 2700
Nashville, Tennessee 37219-8966
telephone: (615) 244-6380
facsimile: (615) 244-6804

James P. Walle, Esq.
General Motors Corporation
300 Renaissance Center
Mail Code 482-C24-D24
Detroit, Michigan 48243
telephone: (313) 665-4877
facsimile: (248) 267-4433

**By EPA Pouch Mail, Return Receipt Requested:**

Karen L. Peaceman, Esq.
James Cha, Esq.
Richard J. Clarizio, Esq.
Office of Regional Counsel, Region 5
U.S. Environmental Protection Agency
77 West Jackson Boulevard
Mail Code C-14J
Chicago, Illinois 60604-3507
telephone: (312) 353-5751
facsimile: (312) 886-7160

Sonja Brooks-Woodard
Regional Hearing Clerk, Region 5
U.S. Environmental Protection Agency
77 West Jackson Boulevard
Mail Code E-13J
Chicago, Illinois 60604-3507
telephone: (312) 886-3617
facsimile: (312) 886-0747

(*continued on next page*)

**By EPA Interoffice Mail, Return Receipt Requested:**

Mary Gleaves, Esq.
Office of General Counsel
U.S. Environmental Protection Agency
1200 Pennsylvania Avenue, N.W.
Mail Code 2366A
Washington, D.C. 20460
telephone: (202) 564-5508
facsimile: (202) 564-5644

Christine McCulloch, Esq.
Office of Civil Enforcement
U.S. Environmental Protection Agency
1200 Pennsylvania Avenue, N.W.
Mail Code 2249A
Washington, D.C. 20460
telephone: (202) 564-4008
facsimile: (202) 564-0019

**By Facsimile and EPA Interoffice Mail:**

Judge Barbara A. Gunning
Office of Administrative Law Judges
U.S. Environmental Protection Agency
1200 Pennsylvania Avenue, N.W.
Mail Code 1900L
Washington, D.C. 20460-0001
telephone: (202) 564-6255
facsimile: (202) 565-0044

Date: JUN 20 2008

for AD
Annette Duncan
Secretary